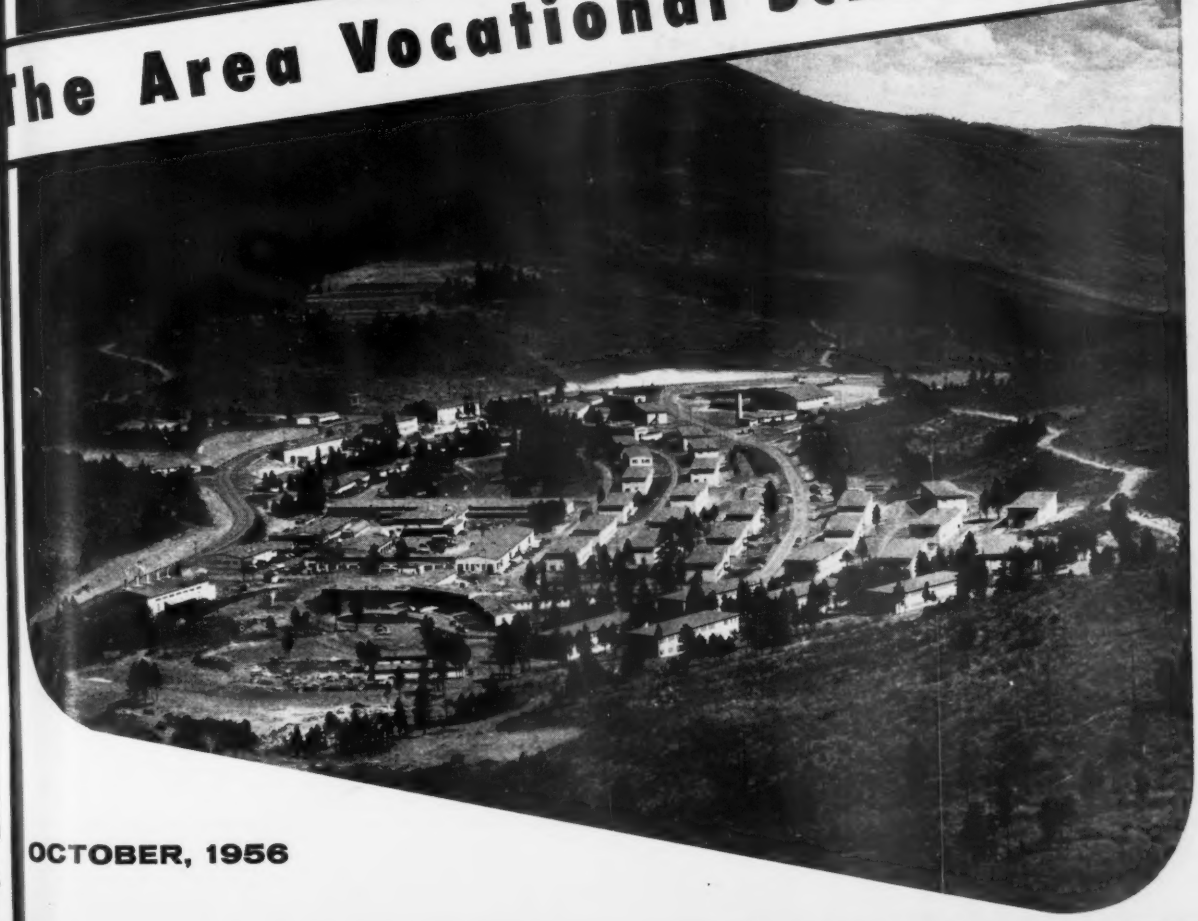
American VOCATIONAL Journal

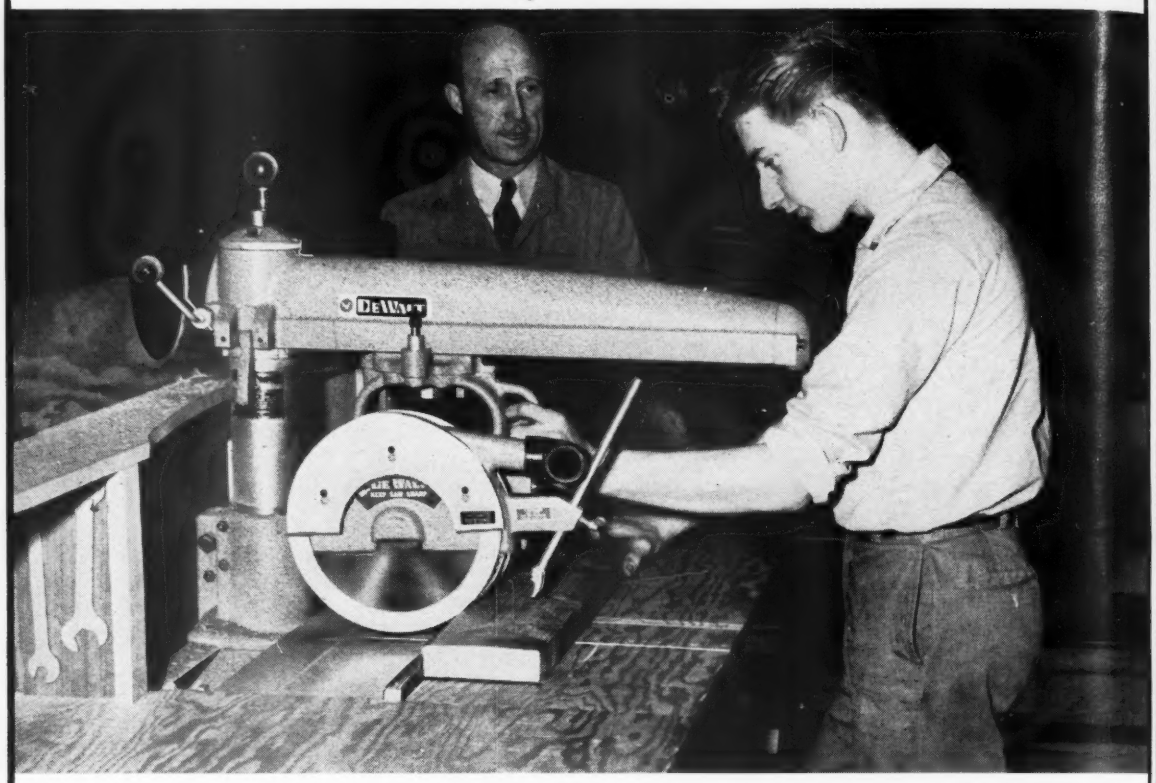
UNIVERSITY
CHIGAN
2 1959
EDUCATION
LIBRARY

The Area Vocational School Story

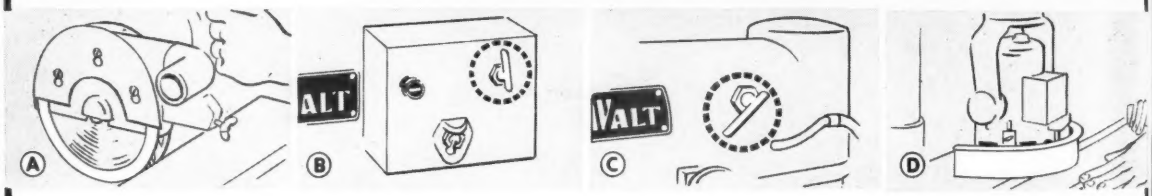


OCTOBER, 1956

Future job safety is your responsibility...



And De Walt® has the safest record in industry!



You need these exclusive operating safety features: **A**—Simpler, safer top-side cutting with exclusive safety guard. See your mark *and* your saw. **B**—Power brake stops saw in 4 seconds for *added* safety. **C**—Safety key switch prevents unauthorized use. **D**—De Walt becomes tilting arbor shaper with exclusive shaper guard—gives 50% more shapes per cutter. Combines 12 basic power tools. Builds into workbench, gives safer straight-line handling.

Train your students on an AMF De Walt—preferred in both home and industry for accuracy, versatility—*plus the safest record of performance.* Arm raises, lowers, swings 360°. Motor and saw ride on arm, rotate 360°, tilt downward past 90°. Powerful direct-drive motor accommodates any circular tool, saves cost of separate machines. De Walt's the saw your students will later use!

2 popular sizes for schools...GW-I, 1½ hp, 10″ size for industrial arts...GA-N, 3 hp, 12″-14″ size for vocational training.

See your supplier or send for FREE BOOKLET.

Another AMF Product
DE WALT
POWER TOOLS

De Walt Inc., Dept. AV-56-10 Lancaster, Pa., Subsidiary of AMERICAN MACHINE & FOUNDRY COMPANY

☐ Please send me FREE BOOKLET on Job-Tested Safety Cutting Methods
☐ Please send information on De Walt 16mm sound classroom film

Name_____

School_____

Address_____

City_____ Zone____ State_____

☐ *Students!* Check here for special literature

American VOCATIONAL Journal

Official Publication of the
American Vocational Association, Inc.
featuring exclusive coverage of vocational and industrial arts education

VOLUME 31 NUMBER 7 OCTOBER 1956

Editor-in-Chief
M. D. Mobley
Executive Secretary
American Vocational Association, Inc.
1010 Vermont Ave., N.W., Washington 5, D. C.

Managing Editor
Dorothy Robinson Davis

Editorial Assistant
Nancy Hall Kane

Editorial Board
Agriculture—George P. Deyoe
University of Illinois
Business—McKee Fisk
Fresno State College, Calif.
Distributive—William B. Logan
Ohio State University
Home Economics—Bernice McCullar
Georgia State Department of Education
Industrial Arts—William R. Mason
Cleveland, O., Board of Education
Trade & Industrial—Russell K. Britton
Denver, Colo., Board of Education

AVA Officers
President—J. F. Ingram
Alabama State Department of Education
Past President—Cecil E. Stanley
Nebraska State Department of Education
Treasurer—Charles W. Sylvester
6429 Blenheim Rd., Baltimore, Md.

Vice Presidents
Agriculture—R. E. Bass
Virginia State Department of Education
Business—Arthur L. Walker
Virginia State Department of Education
Distributive—Roy Fairbrother
Wisconsin State Dept., Voc'l and Adult Educ.
Home Economics—Dorothy K. Lawson
New York State Education Department
Industrial Arts—Shriver L. Coover
State Teachers College (California, Pa.)
Trade and Industrial—Samuel L. Fick
California State Department of Education

The American Vocational Journal is published monthly, September to May, inclusive, by the American Vocational Association, Inc. Entered as second class matter at the Post Office at Washington, D. C., under Act of March 3, 1879. Contents are copyrighted by the American Vocational Association, Inc. All members of the American Vocational Association, Inc., receive the Journal; 25 per cent or more of membership dues reserved for Journal. Membership applications should be submitted through state vocational association secretaries. Orders for subscriptions for libraries and non-members at $3.00 a year should be sent to AVA headquarters, 1010 Vermont Ave., N.W.

Special Features

Guest Editorial 5
by Senator Lister Hill

The Area Vocational School Story 6

How Michigan Trains Practical Nurses 14
by H. J. Van Westrienen

How West Virginia Trains for Industry 16
by Okey E. McCourt

How Oregon Trains Technicians 17
by W. W. Cox and W. D. Purvine

How Minnesota Trains for Distribution 20
by Warren H. Hutchens

How Louisiana Trains Farm Mechanics 22
by A. E. Robinson

How Vermont Trains Farmers 24
by Richmond Young

How New Jersey Provides Guidance 25
by George Morgenroth

How Virginia Trains for Business 27
by L. A. Hill

How Colorado Trains Homemakers 29
by Horace Wubben

How Rhode Island Plans for the Future 30
by F. Sheldon Davis

Education Platforms 32

AVA Membership Achievement Map 34

Regular Features

From the Nation's Capital 3
by M. D. Mobley

From the Office of Education 33

Around the Nation with Vocational Education 35

Association News 37

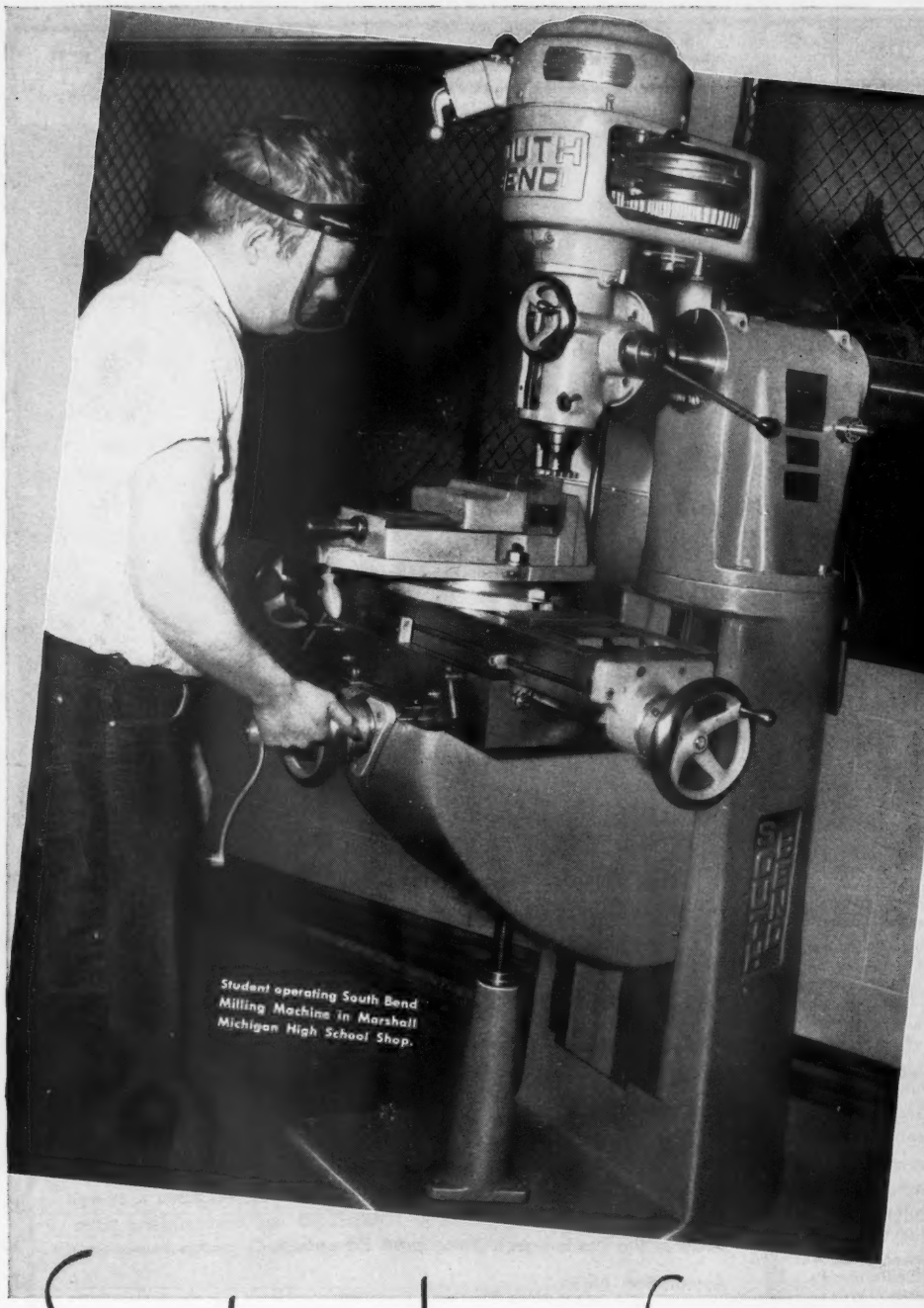
People 38

Books and Bulletins 39

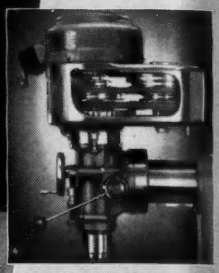
The Cover: Top photo is an aerial view of the Bullard Havens Technical School, Bridgeport, Connecticut. Completed in 1952 at a cost of $2,335,000 it is the largest and was the first to be constructed in an area vocational school building plan for 14 new plants at a total cost of $26,500,000.

Oregon Technical Institute is shown in the lower photo. Ten years old, this state-operated area school served 1279 students from Oregon and neighboring states during the 1955-56 term. The state appropriation for it has grown from $620,000 for the first biennial to a current $1,657,000.

Serving youth and adults in eastern and western sections of the United States, these two area vocational schools are representative of 250 such institutions that currently function in 28 states and two territories.

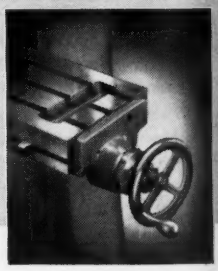


Student operating South Bend Milling Machine in Marshall Michigan High School Shop.



Lo-Loss spindle drive and precision quill.

Large, adjustable graduated collars.



Power table feed and quill feed optional.

Students learn faster

ON SOUTH BEND PRECISION VERTICAL MILLING MACHINES

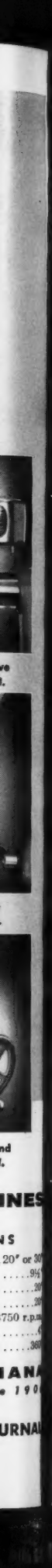
Take a page from the experiences of other shop teachers and you'll find South Bend Milling Machines fit your program perfectly. They are very easily set-up for a wide variety of work and are simple to operate. This enables students to make faster progress with less supervision and fewer failures. Write for the complete story.

SPECIFICATIONS

Longitudinal table travel	20" or 30
Cross feed	9½
Spindle to table (max.)	
Spindle to column (max.)	
Spindle speeds (8)	135 to 3750 r.p.m.
Spindle travel	
Head rotation	360

SOUTH BEND LATHE SOUTH BEND 22, INDIANA

Builders of machine tools since 190



from the Nation's Capital

M. D. Mobley

THIS ISSUE OF the JOURNAL is devoted almost entirely to coverage of activities in area vocational-technical schools and programs throughout the nation. The lead feature is a summation of results of a nationwide AVA survey. Other articles offer examples of good operating area programs in each of the several phases of vocational education. Additional courses are offered in these schools and states but one has been singled out for emphasis because of its successful operation.

Area vocational-technical schools and programs are not new. Several such institutions and programs have been in existence for many years. There has been a sharp increase, however, in the number of such schools and programs in recent years. This prompted the AVA to bring together factual information about the present status of area programs.

We believe the JOURNAL is the first magazine to offer comprehensive coverage of area vocational schools and programs in the United States. We hope the information on these rapidly growing institutions and programs will prove interesting and helpful in the further development of vocational education.

GUEST EDITORIAL

We are pleased to carry in this issue a guest editorial by Senator Lister Hill of Alabama, Chairman of the powerful Senate Committee on Labor and Public Welfare that handles all legislative measures dealing with education. We hope you will read the Senator's splendid editorial as it points out the need for greatly expanding vocational and technical education in this country. It is a statement of significance because it comes from a man who is in a position to do something about it—and will.

ANALYSIS OF AREA VOCATIONAL SCHOOL BILL, S. 4301

The area bill was introduced for the purpose of getting the proposal before Congress and the nation and to perfect the measure before it is reintroduced in the next Congress. Under *Statement of Findings and Purposes* the bill reads in part as follows:

"The Congress hereby finds that although the States have established and are carrying on excellent programs in vocational education with the assistance provided by the Federal Government under the provisions of the Smith-Hughes Vocational Education Act and the Vocational Education Act of 1946, such programs cannot, without further assistance, be made available in many areas and are not broad enough to provide necessary vocational and technical education for many adults and older persons, especially training and retraining made necessary by scientific and technological developments in industry, agriculture, and other occupational fields."

As introduced, the bill provides for the further promotion and development of vocational-technical education programs of less than college grade. The measure authorizes appropriations which may be used for developing all phases of vocational education, including agriculture, business, distribution, home economics, and trades and industry.

Funds for the program will be apportioned to states on the basis of the composite formula in the George-Barden Act. The formula in this Act has proved very satisfactory for more than 20 years.

The program, according to provisions of the bill, is to be administered by the same authorities as the current program, that is, the U. S. Office of Education at the national level and the State Boards for Vocational Education at the state level. State Boards will have full authority to designate and approve any school or program within a school as an area vocational school or program. This is set forth in the definition of an area school as used in the measure, which reads as follows:

"The term 'area vocational school' means a vocational-technical school or a vocational and technical program, or both, of less than college grade for youths not less than sixteen years of age and for adults operated by state or local authorities or both for a state or an area of a state designated and approved by the State Board."

(A number of vocational leaders have suggested that the term "less than 16 years of age" be changed. Efforts will be made to substitute a more appropriate statement that will not have a definite minimum age limit for students.)

Under this definition, full authority to designate and approve area vocational schools and programs rests with the state boards for vocational education. State Boards can approve as many schools as they want to offer area programs. They also have the power to designate the area of the state to be served, such as a secondary school district, several school districts, a county, a number of counties, or an entire state.

The bill does not limit the use of funds to any particular phase of vocational education. Funds appropriated under the provisions of the bill could be used for any and all occupational fields, such as agriculture, home economics, business, distribution, and trades and industry.

According to provisions of the bill, it would be possible to expand training programs for adults in agriculture, home economics (as well as other occupational fields) and for out-of-school young farmers and young homemakers. State boards can approve any number of schools to carry on such work. In fact, the bill has great possibilities for increasing all phases of vocational and technical education. States would have freedom in developing programs in keeping with their special needs.

The guest editorial in this issue of the JOURNAL by Senator Lister Hill, which contains some of the same facts he presented on the floor of the Senate at the time the bill was introduced, points out the great need for this proposed legislation. Senator Hill explains that, if this measure becomes law, it will help the United States win the economic war

with Russia which is beginning to take form.

The measure as introduced provides for no matching by state funds the first year, 75 per cent the next two years and 100 per cent matching thereafter.

It authorizes an appropriation of $5 million for the first year, $7,500,000 the second year, $10 million the third year and thereafter any amount deemed necessary by Congress for carrying out the provisions of the Act. This is what is known as an "open end" measure with no ceiling on the amount that may be appropriated annually by Congress. Opposition may develop to the "open end" provision of the measure.

Funds appropriated under the provisions of the bill may be used for determining need, planning, developing and operating area vocational schools and programs and for:

(1) salaries and necessary travel expenses of state personnel and teachers, supervisors, vocational guidance counselors, teacher trainers, directors, administrators, and others needed in the operation of such schools, and travel expenses of members of advisory committees and state boards;

(2) purchase, rental or other acquisition of instructional equipment;

(3) instructional supplies and teaching aids;

4) maintenance and repair of equipment; and

(5) transportation or subsistence, not in excess of limits established by the Commissioner of Education, for students attending such schools.

FIFTY YEARS OF PROGRESS

This year a half century of progress in the development of professional vocational organizations and programs of vocational and practical arts education is being celebrated. As a part of the observance, the December issue of the JOURNAL will be devoted to the histories of all major phases of vocational and industrial arts education. This special issue will be one that you will want to preserve in your personal library. It will make a splendid Christmas gift for lay and professional friends interested in vocational education. It will comprise not less than 128 pages.

If you have not already done so, please place your order for extra copies ($1 per copy) of this special issue at once. It will soon go to press. All orders for extra copies should be in within the next few weeks.

Teacher trainers will find this JOURNAL of tremendous value in teaching the history of the development of vocational and industrial arts education in this country. Be sure to order sufficient quantities for use through the years. *Do not wait until it is too late to reserve copies of this important AVA publication!*

GOLDEN ANNIVERSARY CONVENTION

Final plans are rapidly being completed for the 50th vocational convention, St. Louis, December 3-7. It now appears that we will have the largest sale of exhibits and the biggest attendance in the history of the AVA. This will be a great convention. We hope you are making plans to attend.

POLITICAL PARTY PLATFORMS

We hope you will read the education platforms of the two major political parties adopted at the national conventions held in August in Chicago and San Francisco (page 32). A very determined effort was made to get a plank in each of the two political party platforms. We regret that we failed in the case of one.

SUMMER CONVENTION, 1957

Please keep in mind that the 1957 annual vocational convention will be held during the week of August 5-9 in Philadelphia. Publicity about this convention will begin in the February, 1957 issue of the JOURNAL. Program chairmen are already at work developing programs. The local Philadelphia committee and the AVA office are working together to make this a great convention. We hope you will reserve these dates on your calendar and also will attend the first vocational convention that has ever been held during a summer month.

PRESIDENT'S COMMITTEE ON EDUCATION BEYOND THE HIGH SCHOOL

P.L. 813 authorized funds for a Presidential Committee on "Education Beyond the High School" and appropriated $150,000 for its expenses in fiscal year 1957. It also authorized an appropriation of $650,000 "to encourage and assist each state to provide for a state committee on education beyond the high school, composed of educators and other interested citizens, to consider educational problems beyond the high school and to make recommendations for appropriate action to be taken by public and private agencies at local, state, regional, and federal levels." No funds were appropriated under this authorization for this year.

Executive Director for the Committee is Dr. Elvis Stahr, of the University of Kentucky. Plans are being made for six regional conferences to be held during the first six months of 1957.

The Office of Education has established a liaison committee to work with the Committee and help coordinate activities. The USOE committee is composed of the heads of various divisions in the Office of Education, and James E. Pearson, as Assistant Commissioner in Charge of Vocational Education, will be a member.

Vocational educators should make certain that their program is represented on this Committee since many vocational offerings are for youth and adults who are beyond high school age. In many states terminal vocational programs are being offered in junior colleges and on a post high school basis.

PRACTICAL NURSE BILL

By this time it is generally known that the 84th Congress approved a measure authorizing $5,000,000 annually for five years as aid to states for expanding and improving practical nurse training programs.

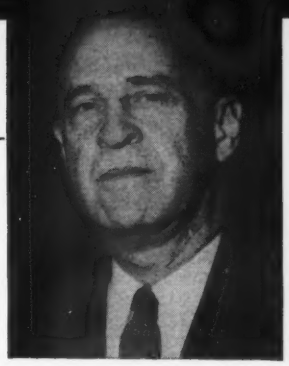
Through a supplemental appropriation measure passed in the last few hours Congress was in session an appropriation of $2,000,000 was approved for fiscal 1957.

It is most important that states use the money that has been allotted for effectively expanding and improving practical nurse training programs. Congress approved this measure because of the great need for additional nurses. Should the states fail to use this money wisely it will be exceedingly difficult to obtain the full amount authorized for the next fiscal year. Congress expressed its faith in the leadership of vocational educators when it placed this program in their hands. It is our sincere hope that there will be no disappointment in the results.

W. D. Mobley

Executive Secretary and Editor-in-Chief

GUEST EDITORIAL



BY SENATOR LISTER HILL, ALABAMA

THE ECONOMIC PICTURE in the United States and the world situation have changed markedly since 1917 when Congress passed the Smith-Hughes Act, recognizing the importance of vocational training to the national welfare and national security. Just as the Smith-Hughes Act stimulated the growth of vocational education programs 40 years ago, the area vocational-technical school bill, drawing upon the tested and proven experience under the Smith-Hughes Act and related acts, will bring needed training opportunities to people in sparsely settled areas, to people in small towns that cannot afford to maintain the expensive equipment required in a sound vocational program, to people who need training or retraining to compete in the changing labor scene.

Area vocational technical schools will make possible the establishment of training programs, in keeping with the special needs of the several States and Territories, in rural areas where secondary schools are unable to operate comprehensive vocational-technical programs. A great contribution to our national strength and prosperity will result from the prevention of the waste of manpower which follows when large numbers of our people enter the labor market without skills or technical knowledge.

Hearings before the Subcommittee on Economic Stabilization of the Joint Committee on the Economic Report, relating to automation and technological change, made it clear that jobs in the future—in all phases of our economy—will demand a higher degree of technical knowledge. Every industrial worker will not, of course, need to be a professional engineer, but there will be a sharply increasing demand for skilled technicians. At the present time, for every university trained, professional engineer there is required on the average, a supporting crew of five technicians. Yet these workers are not now being trained in sufficient numbers to meet even the demands of today.

The shortage of technicians is making more critical our present severe shortage of engineers and scientists. Many of these professional workers are now being drawn into positions for which they are more than adequately trained, because supporting technicians are not available. The training of more technicians would constitute a major step toward relieving the serious shortage of engineers and scientists.

Vocational-technical schools, operating on a regional basis to provide training in the most economical manner, can provide much of the answer. Vocational educators know how to provide this training. They proved this under fire during World War II when they speedily produced the trained workers needed for war production. They need only the funds to stimulate the expansion of present vocational-technical programs.

Skilled workers are as important to the security of our country as material weapons of defense. During recent hearings before the Subcommittee on the Air Force of the Senate Committee on Armed Services, Gen. Curtis E. LeMay, Commander in Chief of the Strategic Air Command, declared: "I consider the lack of skilled manpower to be my most critical deficiency." General LeMay made it clear that the overall quality of airplane maintenance is below what it should be because of the lack of technically trained personnel. Our potential military strength is weakened by the shortages.

One of the big items in the Air Force budget is the cost of training aviation technicians. It takes the Air Force 4 years to bring a man to the skilled technician level. During this time the Air Force has invested $22,500 in him and has received approximately 1½ years of productive effort from him. At the end of the 4-year enlistment, 90 per cent of such men leave the service and return to civilian life.

A major reason for leaving the service is the competition of private industry for skilled technicians. In other words, the Air Force is training skilled technicians for private industry at a terrifically high cost to the taxpayer. If more technicians were being trained through the economical facilities of the public schools, it would relieve this disturbing situation in a number of ways. If enlistees had some previous basic training in mechanics and technology, it would cost the Air Force (and other branches of the armed services) so much less (in time and dollars) to train its skilled technicians. A more adequate supply of skilled technicians would relieve industry's needs. Enlisted men would be encouraged to stay in the service and the wasteful expense of training a new mechanic every four years could be largely eliminated.

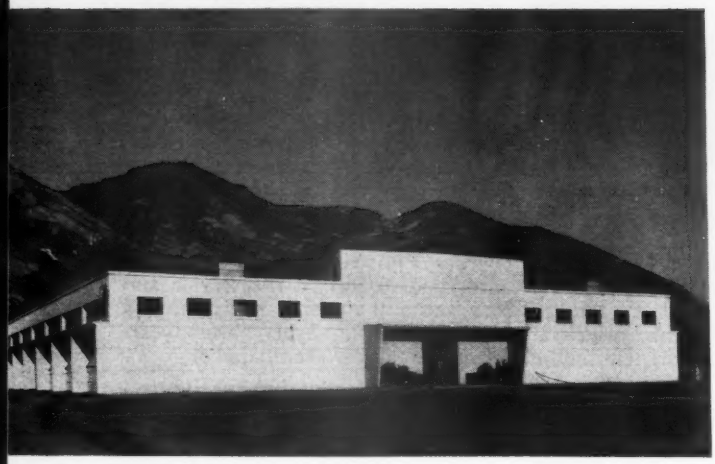
Information from behind the Iron Curtain reveals that the educational revolution in Russia poses as serious a threat to our Nation as their achievement in airpower or hydrogen weapons. The Communists have recognized the essentiality of highly skilled training in this technological age and have surrounded education with a new aura of prestige and importance. The Communists have established special schools for the training of technicians.

According to William Benton, publisher of the Encyclopedia Britannica, who recently made a trip behind the Iron Curtain, there are at least 2,000 of these training schools, called "technicums". *Life* magazine, in its March 5, 1956, article on Russia, stated there were 3,796 such schools. These schools have an estimated enrollment of approximately two and one-half million. Through them, Russia is turning out workers with highly specialized skills and advanced technical knowledge for industrial, architectural, and many other occupations. Russia is reported to be training these technicians in foreign languages and exporting many of them to the underdeveloped nations of the world, where they not only teach work skills but the Communist doctrine as well.

Allen W. Dulles, Director of the Central Intelligence Agency, reports that the Soviet Union has become the second greatest industrial power in the world, and that while we still have a great lead, the Soviet rate of progress is faster than ours. One of the reasons for this, says Mr. Dulles, is that a prodigious effort has been expended on scientific and technical education. In 1955, some 66 percent of graduating fulltime Soviet stu-

(continued on page 38)

North wing of the new Central Utah Vocational School: construction of additional shops at right



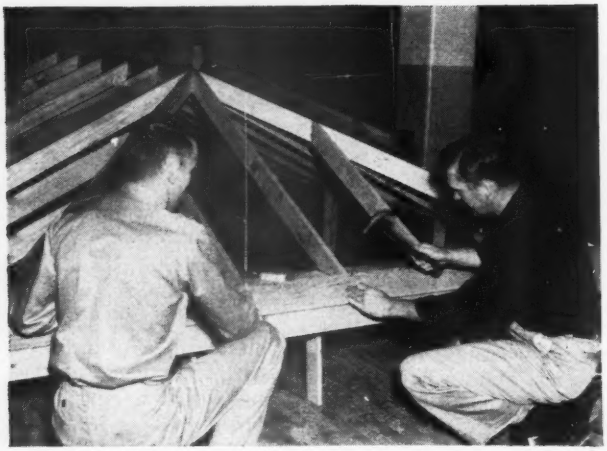
The Area

The Central Utah Vocational School has, for the past 15 years, provided training in agricultural, business, and industrial occupations for the young people and adults of four counties. This fall the school's 982 students, more than 600 of whom are adults attending evening classes, will have some of their courses in a new school plant that, when completed, will have cost well over $1 million. Students in the day school program may now obtain certificates of completion in any one of 12 occupational fields, while evening school extension and apprentice offerings include 25 different courses. A Young Farmer Program is in operation, and the school offers summer courses and supervised home study in certain apprenticeship trades, in its efforts to fully meet the training needs of the citizens of central Utah.

The 2,000 evening enrollees at Lafayette Vocational School, Lexington, Ky., include journeymen auto mechanics

Located in the busy city of Lexington, Kentucky is the Lafayette Vocational School which is providing the "know-how" demanded for productive employment in the state's increasingly industrialized economy. High school youth, early school leavers, young workers, and adult workers from a 2500 square mile area in the middle of the state come to this school for specialized training. For an annual expenditure of $119,000, derived from local, state and federal funds, plus fees, the school provides instruction for over 2600 students, 837 of whom are girls. Including 47,450 square feet estimated at $275,000, it is administered by a county board of education. Day school courses in *Auto Mechanics, Drafting, Electricity, Machine Shop, Radio, Woodworking, Office Occupations,* and *Distributive Education* are augmented by a wide variety of more specialized evening courses covering *Building Materials Estimating* through *Industrial Electronics, Carburetion,* and *Window Display*. The school, which has placed every one of its area graduates in the last five years, has far more requests for trained people than it can fill.

Carpentry and Cabinet Making is one of twelve trades taught at the Nebraska State Trade School



Only 23 of the 385 boys enrolled in the Nebraska State Trade School live within 16 miles of the school, which enrolls students from the entire state. Board and room are provided by dormitory and cafeteria facilities, with duplex housing units for married students. While 8th grade is the lowest required for entrance, high school is recommended for entrance in all departments, and 244 of the students are high school graduates. Students pay tuition and buy their own tools at the school, where a staff of 36 is serving the state's industrial employment needs through trades courses. Because of the state's dependence on agriculture, instruction is provided in *Diesel and Farm Tractor* and *Welding and Farm Machinery*. A Student Union, modern gymnasium, and athletic field supply recreational activities, and faculty and students operate their own fire department.

ocational School Story

esults of a nationwide survey

THE CENTRAL UTAH Vocational School, the Lafayette Vocational School, and the Nebraska State Trade School are all area vocational schools.

They are all examples of an educational institution that has developed to serve the practical occupational training needs of a large geographical area. They are not unique but are representative in some way of the approximately 250 area vocational schools which have sprung up throughout the country in answer to our growing economy's demands for skilled workers.

As these three examples show, there is no single pattern of organization or service which marks the area vocational school. They exhibit a diversity of administrative control, financial structure, enrollment, expenditures, course offerings, and services which makes their current status difficult to describe. This variety, however, is indicative of the flexibility of vocational education and the ability of vocational educators to find effective solutions to the problem of training people where they are for the jobs which exist in our economy.

No more detailed definition of an area vocational school is needed than its name. These schools have in common only two characteristics—they are vocational in nature, providing training which leads to employment in specific occupations, and they serve the potential students of more than a single community or local school district. An area vocational school is a service, a solution to the problem of providing vocational training for all who need it and can profit from it.

GEOGRAPHIC DISTRIBUTION

Kentucky, Utah, and Nebraska are not the only states where area vocational programs are in existence. At the present time, 28 states and 2 territories operate area vocational schools or programs under state and/or local public school authorities.

They are: Alabama, Connecticut, Delaware, Florida, Georgia, Kansas, Kentucky, Louisiana, Maine, Massachusetts, Michigan, Minnesota, Missouri, Nebraska, New Hampshire, New Jersey, New York, North Carolina, North Dakota, Oregon, Pennsylvania, South Carolina, Utah, Vermont, Virginia, Washington, West Virginia, Wisconsin, Hawaii, and Puerto Rico.

Rhode Island has its first area school under construction (see page 30) and the Arkansas state legislature is considering plans for a statewide system of area vocational schools.

In 8 additional states, area vocational programs are functioning as divisions of junior colleges or state colleges as the only form of vocational training offered on an area basis: California, Colorado, Idaho, Illinois, Mississippi, Oklahoma, South Dakota, and Texas.

Only 10 states have made no provision for offering vocational education on an area basis: Arizona, Indiana, Iowa, Maryland, Montana, Nevada, New Mexico, Ohio, Tennessee, and Wyoming.

Area vocational schools have been recognized through state legislation in many sections of the country. Fifteen states have passed laws authorizing establishment of area vocational schools under state administration. (All 15 have such schools in operation except one, in which all the area programs are administered through local school authorities.)

Twelve states have laws enabling local school authorities to operate area schools, on some cooperative basis, and only two of these have failed to take advantage of the legislation.

This report on the current status of area vocational schools and programs in the United States is based on a survey conducted during 1955-56 by the American Vocational Association. Requests were sent to state departments of education to obtain lists of area vocational programs in operation in each state. Information was received from every state and from Hawaii and Puerto Rico, and a total of some 250 schools and programs was reported. A very detailed questionnaire was sent to each of these schools; and information was returned by 157 area vocational programs in 34 states and 2 territories. The forms were studied and analyzed by staff members in the AVA headquarters office, who have prepared this report. A more detailed description of survey findings will be published in bulletin form next year by the AVA.

ADMINISTRATION

Each state has approached the "area" school idea in terms of its own distinctive economic and educational development. The result is a system, or rather lack of system, which is not standardized but is amazingly versatile, flexible, and sensitive to the changing needs of our people and our country.

State Schools: One pattern of organization is the state-operated school, where control of all operations rests with the state board of vocational education. Both the Central Utah Vocational School and the Nebraska State Trade School are examples of an area school administered by the state.

State operation is the pattern followed in Alabama, where state trade schools are operated in Decatur, Gadsden, Birmingham, Tuscaloosa, Dothan, and Mobile. The Alabama School of Trades at Gadsden was founded in 1925, but the other five schools are the result of the 1947 Trade School Act sponsored by forward-looking legislators and educators. Together these schools provide training, in 47 different occupations, for some 2400 young people and adults in the state of Alabama. The special emphasis of these area vocational schools is placed upon service to rural youths and adults who are excess to the needs in agricultural pursuits and who must leave the farm. A tuition fee is paid by the students, who learn the exact skills and technical knowledge they will need to take positions in the many new industries moving into Alabama.

Louisiana has 26 state-operated area trade schools—more than any

West Virginia's Mercer Co. vocational program is among 24 county operated area vocational programs reporting.

other state in the nation. They are widely distributed throughout the state and provide excellent coverage of the vocational education needs of the 64 parishes. The first such school in the state began operations in 1934, and since then the legislature has appropriated funds necessary to build and equip these new schools to serve the state's varied training needs.

The State Trade School in Milford, Nebraska, is one of four state-operated vocational schools in the country which serve an entire state. The Maine Vocational Technical Institute, the North Carolina Vocational Textile School, and the Vermont State Agricultural School are also the only area vocational programs in their states.

The North Dakota State School of Science serves the industrial training needs of the entire state, but in addition vocational agricultural opportunities are offered through several area schools. New Hampshire's Technical Institute, which is state operated, is the only school which offers technical subjects and accepts students from throughout the state, but several local communities have initiated area vocational programs in the four federally-aided fields.

Other states which operate one or more area vocational schools or programs are Georgia (see the picture story on pages 10-11), Kentucky, Louisiana, Oregon, Pennsylvania, South Carolina, Washington, Hawaii, Puerto Rico, New York, and Michigan.

County Area Schools: In seven states, area vocational school programs are offered through county secondary school authorities (Florida, Kentucky, New Jersey, New York, North Dakota, Virginia, and West Virginia). These schools serve students from an entire county and often accept people from outside the county through special tuition arrangements with the student or the county school authorities concerned.

In New Jersey, there are four county systems which maintain vocational and technical programs, on an area basis. Even here there is diversity, for Bergen County has one school, offering programs in agriculture and trades and industries; while Essex County operates five different schools which meet the varied needs of its young people and adults for both preparatory and extension training in the industrial and distributive occupations of New Jersey.

Another form of county operation is that in existence in Rockland County, New York. Its decentralized system is provided for in the New York State Education Law, but to date it is the only county which has established the necessary machinery to provide vocational training under the law. The system involves the use of existing training facilities in the county's high schools, and pupils from anywhere in Rockland County may attend the vocational course of their choice, no matter in which school the training program is located. Five county-operated buses transport approximately 300 pupils from their home school to the school (or project site) providing vocational training. Cost of operation is shared by all participating schools, and the program is administered by a special county board for vocational education.

Local Cooperation: Many of the area vocational schools are operated by city boards of education, through some system of cooperation among school boards in the region. Great ingenuity has been shown by local school districts in meeting area demands for occupational training.

In the heavily-industrialized Wyoming Valley area of Pennsylvania, 15 school districts joined together in 1955 to create the Wyoming Valley Technical Institute. The jointure plan, which is allowed under Pennsylvania school laws, was promoted by the local chambers of commerce. An advisory committee was first appointed to study the possibilities for expanding training opportunities; a questionnaire sent to high school students in the area indicated that 72 per cent of the 10th and 11th graders would take vocational education if it were available; an industrial survey, prepared with the help of both management and labor, revealed that 95 per cent of the industries in the Valley, both light and heavy manufacturing, would like to have opportunity to hire locally trained workers.

A special Task Force from the advisory committee met with 16 school districts to explain the proposed jointure and urge their participation. The formal papers establishing the area vocational school were signed in 1955, and the Wyoming Valley Technical Institute began operations in an existing 9-year old school building in Kingston. It is administered by a special board made up of representatives of each of the participating school districts.

During 1956, its first year of operation, the school trained 298 young people in seven different trades, with a staff of 14. The school is supported partly from county funds, and sending districts pay transportation costs of students.

A similar jointure plan has been in operation in the 250 square mile area surrounding Uniontown, Pennsylvania, for 10 years; and plans are underway for an area technical school in the Allegheny county region of the state.

Citizens of Massachusetts have also cooperated to face the problems of providing educational opportunities for their expanding population. The Silver Lake Regional High School is an example of how four towns benefited, economically and educationally, by establishing a regional high school. When, in 1952, the citizens voted to construct a new building, advisory groups of educators and laymen recognized the need to teach their boys and girls to work with minds and hands, too, and planned classrooms and shops where students not going to college could gain basic training in skills and trades. The completed school, built at a cost of $1,715,000 (a per pupil cost, all ready for use, of less than $1700), includes an industrial arts shop, three vocational shops—carpentry and millwork, automotive and metal shop—a vocational agriculture classroom, a vocational home economics laboratory, and several classrooms for related work and work experience.

Dedicated in September, 1955, the new school enrolled 100 pupils in vocational courses last term. Evening classes in home economics were attended by 150 homemakers from the surrounding areas.

Other areas of Massachusetts are following similar plans of cooperative action to provide for the vocational training of their young people and adults.

Some states have both state-operated area vocational schools and schools operating under local control, with more or less supervision and control from the state board of vocational education. Georgia, for example, has two schools under state control: the South Georgia Trade and Vocational School in Americus and the North Georgia Trade and Vocational School in Clarkesville. In addition, three area vocational programs are operated under county authorities in Augusta, Savannah, and Macon.

Kentucky has 12 area vocational schools; some are operated and financed by the state, some are under the control of county school officials or city school authorities but receive state funds.

JUNIOR AND STATE COLLEGES

In 15 states, vocational training on an area basis is offered through terminal courses which are operated as units in a state or community junior college or a state college. Of the 157 schools responding to the AVA survey, 40 are of this type.

For the most part, these programs under college administration are operated in a manner similar to those functioning under state or local secondary school authorities. Course offerings are much the same, although the junior college programs tend to be more highly specialized and technical, resembling the evening school programs rather than the day-school offerings.

Of the 40 programs, 13 require high school graduation as an entrance requirement and three require high school graduation unless the applicant is over 18. Six include only courses leading to an Associate Degree.

An example of the area vocational program operating as a division of a state college is the School of Trade and Industrial Education at the Idaho State College in Pocatello. Serving the entire state, the school last year enrolled 358 all-day trade school students, in 15 trades; 27 students in secretarial training; and 296 trade extension students enrolled in 21 different evening classes, including industrial supervisory training. Current enrollment is eight per cent higher, and the school expanded its 56,608 sq. ft. plant by a new $425,000 building completed this fall.

The entrance requirements are eighth grade graduation, 16 years of age, physical examination, and a satisfactory vocational objective. Successful completion of the courses, which are of either one or two years duration, brings a Certificate of Completion. Total expenditures ($107,167 for 1954-55) are reimbursed to the Idaho State College by the State Board for Vocational Education.

Similar programs are operated at the Arkansas Polytechnic College, Russellville; Kansas State Teachers College, Pittsburg; Southern State Teachers College, Springfield, South Dakota; College of William and Mary, Norfolk, Virginia; and others.

RECOGNITION OF COMPLETION

Type of award	*No. of Schools*
High school diploma *only*	16
Certificate of completion *only*	64
Associate degree *only*	6
Trade school diploma *only*	1
High school diploma and certificate of completion	29
Associate degree and certificate of completion	17
High school diploma, associate degree, and certificate of completion	4
No response	20

California, which for half a century has occupied the leading place among all the states in the development of junior colleges, meets both cultural and occupational needs through its junior colleges. A wide variety of curricula is offered, including many terminal vocational courses. Both day and evening classes provide vocational training in an exceptionally varied list of occupations.

The San Diego Junior College and Vocational School awards high school diplomas, associate degrees, and certificates of completion. Sixty-four advisory committees serve the school to maintain close contact between training and employment conditions in the area. The Sacramento Junior College requires 12th grade graduation and grants both an associate degree and certificates of completion. Pre-employment training in 15 different industrial, business and distributive occupations is provided for 878 students; 495 apprentices and 794 trade extension students receive evening instruction in 27 different trades. Both of these junior colleges are administered by city boards of education.

Other states in which junior colleges provide terminal vocational education include Michigan, Mississippi, Washington, Texas, Colorado, and Utah.

The Agricultural and Technical Institute at Alfred, New York, a state-supported institution, is an example of an area program which operates only at the post high school level. All of its 1143 enrollees are studying courses of instruction which lead to the Associate Degree.

The Agricultural Division offers curricula in *Agricultural Business, Agronomy and Soil Conservation, Animal Husbandry, Dairy Industry, General Agriculture,* and *Poultry Husbandry. Accounting Technology, General Business Management, Sales and Distribution,* and *Secretarial Science* are offered in the Business Division. The Floriculture Division includes *Flower Shop Management* and *Greenhouse and Nursery Management.* The Laboratory Science Division offers instruction in *Clinical Laboratory Technology* and *Medical-Secretarial Science.* The Industrial Division covers *Building Construction Technology, Diesel Technology, Electrical Technology, Industrial Laboratory Technology, Mechanical Technology, Radio and Communications, Refrigeration and Air Conditioning,* and *Farm Power.* The school has an excellent record of placement, in jobs averaging more than $325 per month.

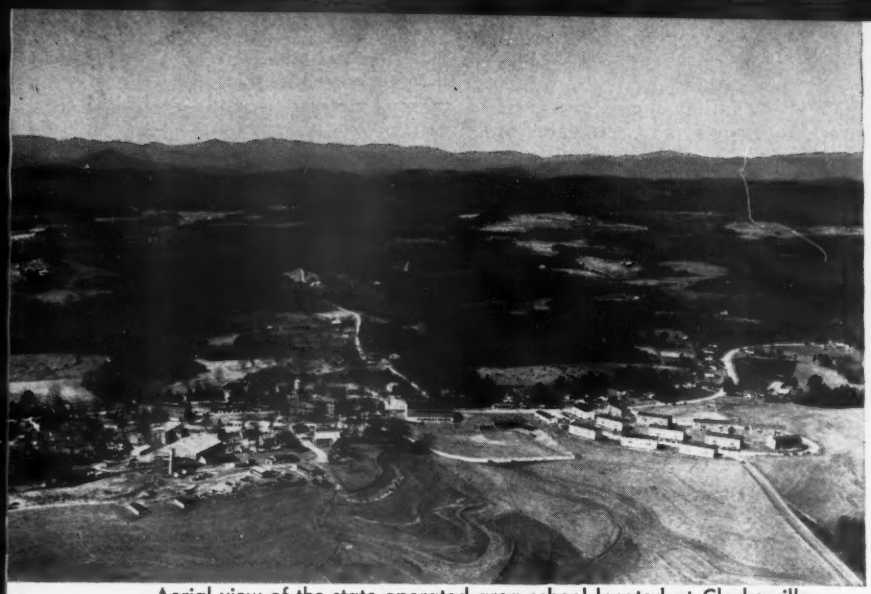
New York State operates six two-year agricultural and technical institutes, at Alfred, Canton, Cobleskill, Delhi, Farmingdale, and Morrisville.

AREA VOCATIONAL SCHOOL FACT SHEET *

* Based on returns from 157 schools and programs; since some questionnaires were not complete, a figure is given for some facts, indicating the number of schools which supplied information for tabulation.

Total current estimated value (132 schools)	$89,182,050.
Average estimated value	$675,621.
Average cost per hour for evening students	$. 59
Average daily per capita cost for day students	$2.43
Schools providing cafeteria services	78
Schools providing dormitory facilities	37
Schools, excluding colleges, providing dormitory facilities	23
Total yearly expenditure (132 schools)	$30,146,409.
Average yearly expenditure	$228,306.
Total floor space (137 schools)	7,223,340 sq. ft.
Average floor space	52,725 sq. ft.
Schools charging tuition from students	53
Total enrollment (140 schools)	123,118
Average enrollment	879
Schools providing transportation	43
Schools making use of advisory committees	109
Schools employing special personnel for recruiting, counseling and placement	40
Schools providing for extra-curricular activities	95
Schools maintaining placement records	77
Staff members (104 schools)	3,983

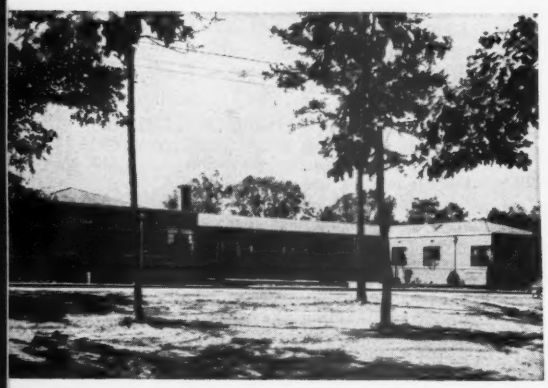
The North Georgia Trade and Vocational School



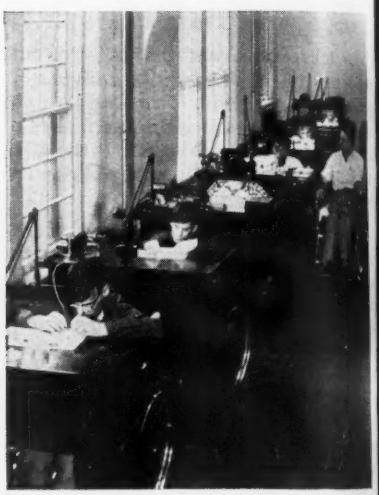
Aerial view of the state-operated area school located at Clarkesville.

Laundry and drycleaning shop

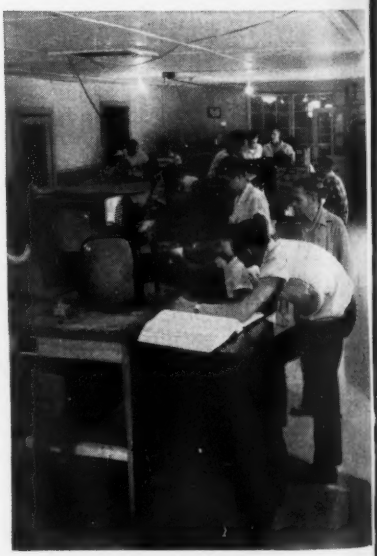
Irwin Hall, Administration Building

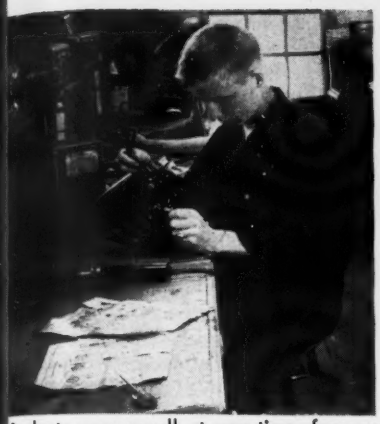


The North Georgia Trade and Vocational School is one of 37 area schools with accommodations for boarding students. Two dormitories are provided; at left is the men's dorm. Students with families live in a 100-unit housing project, shown in photo of baseball field. The modern cafeteria is supplied with fresh produce from the school's 360-acre farm. Facilities also include additional shops and classrooms, library, club rooms, gym and clinic.

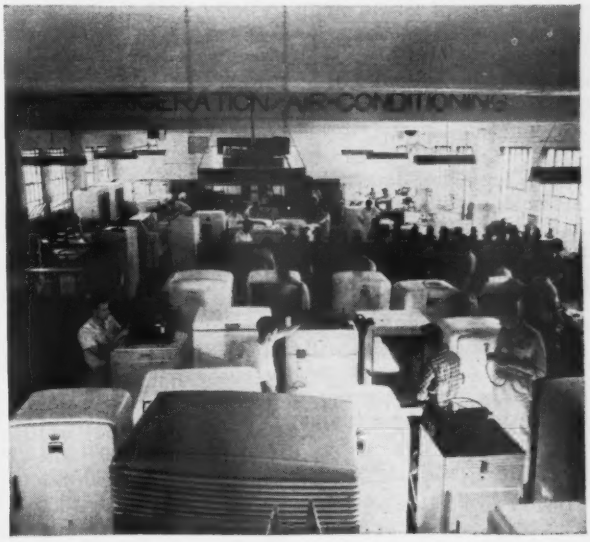


Watch Repair is among 15 trades taught at NGTVS school and offers opportunities for physically-handicapped workers. The course in *Radio Repair and Servicing* includes television work.



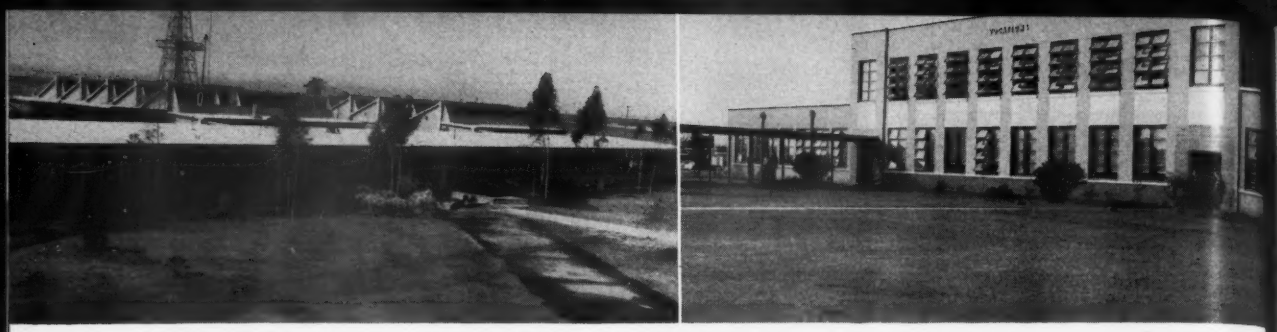


Students may enroll at any time, for any portion of courses, to suit their needs. The beginner in radio work, shown at left, may complete the course in less than the maximum time set up, depending upon his ability, aptitude and effort. The girls at NGTVS, outnumbered by men almost 5 to 1, are in *Homemaking, Secretarial* courses and *Cosmetology*, right.



There is no tuition fee for residents of Georgia, for the state covers all costs of operation. Laboratory and shop fees, however, are paid by students in all trade courses, such as Photography, above left. *Refrigeration* and *Air Conditioning*, above, is among the 20 most popular trades offered by the nation's area schools, according to AVA's survey. Recreational facilities on the NGTVS campus include movies and TV rooms, and indoor swimming pool, and a baseball field, l.

The 12-year-old North Georgia Trade and Vocational School has a staff of 40 which, like 25 per cent of the nation's area programs, includes special personnel for recruitment and counseling of students. The NGTVS's total expenditure last year was $165,000. Its day school program operated at capacity, and there is a waiting list of students from the 9,000 sq. mile area it serves. A total of 46,000 sq. ft. has been added to the school since 1948 to take care of increased enrollments. While in almost 30 per cent of the area schools bus transportation is provided for students, the North Georgia Trade and Vocational School uses its buses, r., for promotion and public relations activities.



Two new junior college buildings used for terminal area vocational programs at Orange Coast College, Costa Mesa, Calif. (Technology Building, l.) and at Lamar State College of Technology, Beaumont, Tex. (Vocations Building, r.).

FINANCES

Diversity is the rule again when it comes to financing area vocational schools. Some, like the Nebraska State Trade School, depend primarily upon tuition payments from students, supplemented by state funds. The Lafayette Vocational School is typical of many whose budgets are raised from a combination of local tax funds, state funds, federal funds, fees, and other sources such as charges for student production jobs.

None of the area vocational schools reporting depend completely on local funds, but ten derive all their financial support from state money. Seventy-six schools charge tuition; 53 from students, the rest from other school districts sending students.

The following tables will indicate the various sources of area school funds, and the average proportion of each in the school budget:

Source of funds	*No. of schools utilizing source*	*Average % of total budget of schools using source*
Local tax funds	65	36.62%
State funds	114	55.89
Federal funds	83	13.13
Tuition	76	24.14
Other sources.....	28	13.79

Average percentage of all sources of income (114 schools): Local, 18.55; State, 55.89; Federal, 7.35; Tuition, 15.94; Other, 2.37.

AGE OF PROGRAMS

The area vocational school idea is not a brand new star on the educational horizon. There has been a tremendous increase in interest in the area school in the last few years because of its potentialities for meeting the nation's present need for trained workers, but such schools have existed in some parts of the country for many years.

Among the oldest, according to the AVA survey, are the schools in Connecticut, North Dakota, and New Jersey, which began on a regional basis in the decade from 1910 through 1920. Of the 139 schools reporting, a total of 21 programs were initiated before 1920. From 1920 to 1937 only 13 programs were established. The last 20 years have seen the greatest interest in area vocational schools: 61 programs began in the years from 1937 through 1946 and 44 since 1946. The peak year was 1945, when 12 area vocational programs first opened their doors: 10 began operation in 1946, and 11 in 1947.

BUILDINGS

America's area vocational school buildings represent a huge investment. The current value of the 132 schools reporting this figure totals $89,182,050—an average of $675,621. This figure represents school plant only and does not include value of equipment or grounds.

There are 31 schools which, like the half-completed Central Utah Vocational School, are valued at more than $1 million; 19 fall under $100,000, and the school with the lowest valuation is a $10,000 school built in 1945. The schools built since 1950 represent a total value of $25 million, excluding equipment.

The majority of buildings utilized by area vocational programs have been built since 1940. Only 39 of the 135 programs reporting are housed in structures built before 1930; 32 are in buildings completed since 1950.

Many states and communities, in order to provide for vocational training on an area basis, have built new schools to house their new programs. Forty-two of 132 programs reporting began operations in buildings newly-constructed especially for area vocational school use, like Connecticut's Warren F. Kaynor Technical School in Waterbury, completed in 1953 at a cost of $2,534,000.

Alabama's expanded program of area trade and industrial education offerings involved several new buildings like the Mobile State Vocational Trade School, completed in 1954. In 1952, Louisiana's system of state-operated schools in each parish (county) was augmented by new schools for new programs in Ferriday, Jennings, New Iberia, Winnsboro, and Many.

It has not, however, been found necessary to build a new school plant in order to establish an area vocational program. In fact, of the 121 schools reporting sufficient information, 65 per cent were first housed in buildings already standing.

Diverse indeed have been the structures utilized by school people in their efforts to provide needed occupational training on an area basis. The Northern Kentucky State Vocational School in Covington operates in an 1870-building that was formerly a post office. Most of Florida's and West Virginia's county area vocational programs were established in existing high schools. The Oregon Technical Institute, whose current value is now the highest in the nation, is housed in former Marine barracks.

There has been a tremendous demand for more and more vocational training, and the area vocational schools have kept pace by constantly constructing additional space. Seventy-three schools have had additions to their original structure, for a total of 156 new classrooms, shops, storehouses, or complete buildings.

Typical of the growth of the country's area vocational schools is the expansion of Kentucky's 13-year old Lafayette Vocational School program from three different buildings to a modern, well-equipped structure in 1952. Although 79 of the 121 area schools reporting began operations in existing buildings, 45 of the 79 are now in new homes. They have outgrown their original quarters and have moved into new buildings designed especially for today's vocational training.

For example, the St. Cloud, Minnesota, Area Vocational-Technical School, started in 1948, moved into a modern, well-equipped plant in

1955 (but it is still not large enough and courses in home economics and business are still offered in another building). The San Diego Junior College and Vocational School boasts a brand-new plant for its terminal vocational program, in existence since 1938.

The Washington County Technical School, in Abingdon, Virginia, began in 1939 with 4,400 sq. ft. Seven additions have been made since then, adding 29,350 sq. ft. of shops and classrooms. Approximately 70 per cent of the school plant, now valued at $300,000, was constructed by building trades students in the school.

Nebraska plans to shift its State Trade School operations into new, larger quarters through a 10-year building program, and it is not the only state making plans to expand its area vocational school buildings. Hawaii has spent over $2,500,000 since 1947 on new construction for four area technical schools; two of which are completely new training facilities. The Territory's Practical Nursing School, now part of a high school program in Honolulu, will soon be moving into a new $100,000 training unit.

Convinced of the economies of offering vocational training, particularly in trade and industrial occupations, through area schools, the Connecticut legislatures of 1949 to 1955 appropriated $26,000,000 to expand the program by additions to present buildings and the construction of new area school plants.

COURSE OFFERINGS

The Central Utah Vocational School, like 42 of the area vocational schools reporting course offerings, includes vocational agriculture in its curriculum. Along with the Lafayette Vocational School, it offers courses in at least two vocational education fields, as do 112 others. The Nebraska State Trade School is one of 31 which restrict offerings to the trade and industrial field.

The number of schools offering courses in five vocational fields is shown below (based on a breakdown of returns from 145 area programs).

Agriculture	— 42
Business Education	— 71
Distributive Education	— 53
Home Economics	— 39
Trade & Industrial Educ.	— 143

Only eight of the schools include subjects in all five programs.

The area vocational schools are attempting to meet the specific employment requirements of their own localities. While there are some courses which are prevalent throughout the country, most of the school catalogs show significant regional differences.

Eastern Kentucky's concern with coal mining is reflected in the Mayo Vocational School's courses in *Mining Electricity*, attended by 211 miners, and in *Practical Mining*, which enrolled 577 coal miners last year. The growth of the textile industry in the South has led to the development of a unique school which provides instruction in *Yarn Manufacturing, Mill Maintenance, Weaving and Design, Knitting*, and *Tailoring*. (The North Carolina Vocational Textile School, in Belmont, is the only area school in the country offering instruction in a single industry.) In Wisconsin, the "dairy state," distributive education includes instruction in the problems faced by the dairy route salesmen; while Florida's DE program puts emphasis on advertising copy-writing for the state's booming tourist industry.

Industrial New Jersey's area schools train technical secretaries, manufacturing technicians, and industrial laboratory technicians; Louisiana and California have classes in oilwell drilling; Oregon gives instruction in gunsmithing and boatbuilding; California trains aircraft accountants; while Utah, where almost all agriculture is on a large, mechanized scale, emphasizes farm mechanics.

The most common courses of instruction, according to the AVA survey, represent occupations important to every part of the country. The courses most frequently listed as part of the day school program of instruction are as follows: Auto Mechanics (offered by 115 schools), Auto Body & Fender (45), Cabinet Making & Millwork (36), Carpentry (53), Cooking and Baking (21), Cosmetology (42), Diesel Mechanic (25), Drafting — Mechanical and Architectural (61), Electricity (79), Electronics — Industrial (26), Machine Shop (96), Plumbing (17), Practical Nursing (43), Printing (33), Radio and TV (75), Refrigeration & Air Conditioning (29), Sheet Metal (30), Towel Trades (18), Welding (40), and Woodworking (19).

A total of 92 different trades are taught in the all-day programs, while evening school courses include 151 different classes.

Area vocational schools are helping to supply the nation's needs for skilled technicians. Evening school courses in particular are concerned

Auto mechanics, most popular of all courses in area vocational schools, is one of three trades offered at Copiah-Lincoln Junior College, Wesson, Miss.

with highly specialized occupations, and the list of courses given includes *Jet Engines, Aircraft Hydraulics, Business Machine Repair, Carburetors, Cam Design, Industrial Technology, Precision Measurement, Mining Electricity, Oilwell Geology, Pattern Drafting, Power Engineering, Metallurgy, Quality Control, Color TV, Stair Layout, Tool & Die Design*, and *Water Treatment*.

The same distinction is true in the other vocational fields also. Those area vocational schools which provide agricultural training list *Agriculture, Farm Mechanics, Horticulture*, etc. for the day school program; while their evening classes cover *Dairy Herd Improvement, Irrigation, Tractor Service, Soils, Practical Veterinary*, and *Farm Welding*.

Evening school courses in Business Education include *Accounting, Income Tax Accounting, Banking, Bookkeeping, Business Arithmetic, Business Law, Business Machines, Business Practice, Business Theory, Comptometry, Dictaphone, Business*

Business education training, at the post high school level, is given at two of Hawaii's four area technical schools.

English, Insurance, Negotiable Instruments, Office Practice, Business Psychology, Public Speaking, Public Relations, Secretarial Training (including executive, medical and technical secretaries), *Shorthand, Supervisory Development,* and *Typing.*

As previously noted, junior colleges tend to follow the pattern of evening schools offerings and include courses that are more technical and more highly specialized.

STUDENTS

There are 123,118 vocational students enrolled in the 140 area schools reporting total enrollment. Average size of the vocational division is 879, but there are 41 schools which have more than 1,000 enrollees. Boys outnumber girls in the area schools almost three to one.

Evening school students account for more than half of the total enrollment even though 32 schools have only day-school programs.

The entrance requirement, as revealed in the AVA survey, which is most frequently in effect is that the student satisfy the school as to his vocational objective: 116 schools require this for admission.

Entrance in the great majority of schools does not depend upon possession of secondary school credits. Fifty schools require completion of 8th grade; 16 require 9th grade; 13 require completion of 10th grade; 3 schools accept only 11th grade graduates; and 15 schools will accept only 12th grade graduates.

Only 47 schools require aptitude tests for prospective students. An additional 28 schools give aptitude tests for certain trades or in special cases. Intelligence tests are required in 38 schools.

The minimum age required varies from 14 to 18. Of those schools reporting, 18 set the minimum age at 14; 9 at 15; 56 at 16 years of age; 6 at 17; and 12 schools require students to be at least 18 years old. Sixteen schools have varying age requirements for different courses.

* * *

Appreciation is here expressed to the many area vocational schools which provided complete information about their programs and, in some cases, furnished photographs of their school activities. More detailed information about survey results and individual schools will be contained in the AVA publication on area vocational schools, which will appear some time next year.

HOW MICHIGAN TRAINS PRACTICAL NURSES

By H. J. VAN WESTRIENEN

Michigan's current program of practical nurse training is conducted in eight centers geographically located to serve the entire state. Initiated in 1937 when the Detroit Council on Community Nursing became aware of an increasing need for nonprofessional nursing personnel, the Detroit program originally operated in cooperation with Wayne University College of Nursing. The Council continues to support the expanded program administered by the Detroit Board of Education.

The second developmental stage came in 1942 when the Michigan Council on Community Nursing approached the Office of Vocational Education for assistance in developing programs throughout the state. After a series of conferences, 117 courses were conducted over a period of about five years. Sixty-nine were preparatory courses – 540 classroom hours followed by 132 days of supervised practice. The trade extension course for those with minimum required experience in practical nursing consisted of 100 classroom hours and 132 days of supervised practice. A total of 1,120 persons completed the preparatory and 759 the trade extension course.

The next impetus was a study of *Nursing Needs and Resources in Michigan* conducted by Mrs. Genevieve Bixler in 1945. This stimulated a series of conferences by the State Nursing Council, promotional activities by the National Association for Practical Nurse Education, and consideration by the Office of Vocational Education's State Advisory Committee on Practical Nursing. The three groups prepared a proposal for an experimental area school program which was submitted to the W. K. Kellogg Foundation by the Superintendent of Public Instruction. A generous grant of funds was made by the Foundation in May, 1947, and the establishment of the eight regional schools followed.

The experience of ten years served as a basis for determining the location and establishment of Michigan's area centers. Reviewed carefully were the resources of school districts, the availability and adequacy of hospitals, district organization of the professional nursing association, the location of highways and transportation lines, natural trading areas that involve both outstate and metropolitan centers, and the need for practical nursing services. Also considered were the availability of potential students, the extent to which professional nursing schools were using necessary hospital facilities, the availability of professional personnel, the location and adequacy of operating programs for nonprofessional personnel, and statistics on home and hospital nursing resources.

After examining these facts, the State Advisory Committee blocked out the state into eight areas that appeared to have adequate resources. The administrators from the schools that were logical centers for the establishment of a program were invited to a meeting in the State Office. Seven schools expressed a desire to participate. The first programs were

Michigan's practical nurse graduates currently total 500 to 600 annually. Since 1947, 4,119 have had training.

Mr. Van Westrienen is Michigan's State Director of Vocational Education.

started in the fall of 1947, and in the following two years the total of eight centers were established with the help of Kellogg Foundation grants and state and federal vocational education funds.

A full time practical nurse consultant was employed by the State Office to assist in selecting instructional staffs, housing facilities and equipment; the use of advisory committees; and negotiations with hospitals for affiliation. The State Consultant prepared a state practical nurse manual, provided leadership in developing curricula, and helped establish teacher training services. All State Office activities were under the direction of the Chief of Trade and Industrial Education.

THE CURRENT PROGRAM

During the three-year life of the experimental program, several patterns of administrative organization were tried. All were satisfactory and have continued in use. Two centers operate as part of a junior or community college, one operates in rented quarters in a state hospital, one is housed in quarters provided by a state college of education, one is in a senior high school and the others are in elementary or junior high schools. Administrative responsibility for the various programs has been assigned to deans of community colleges, local directors of vocational education, school principals, and, in one case, a school director who reports directly to the superintendent of schools. In each case the decision was based on the local school administrative organization.

Students are recruited from a broad geographic area. The school at Marquette in the Northern Peninsula has students coming from cities located from 146 to 165 miles distant. This has necessitated a well organized recruitment program, but has presented no serious problem.

The program is open to both men and women between the ages of 18-50. Minimum educational requirement is completion of the eighth grade for those over 25 years of age, and for those under 25 completion of twelfth grade. Applicants are carefully screened and must evidence sound physical condition and high moral character. As a result of careful selection, a steady decrease in the rate of withdrawal seems stabilized at about 22 per cent. Withdrawals in most cases are due to personal health problems, personal family difficulties, and other unpredictable factors.

The cost to the student averages from $110 to $160. Those not residing in the community have an additional expense of $300 to $375 for board and room which, in many cases, is taken care of through part-time employment. After entering the hospital they average about 50 per cent of the established pay for trained practical nurses.

Operating costs for the school district vary greatly because of differences in the area served, salary levels, the number enrolled, and incomes from fees which the hospital contributes. A typical program enrolling two classes per year of 20 to 25 students and employing full time a director-coordinator, a nursing instructor, a secretary, and a part time homemaking instructor requires an annual budget of $14,000 to $20,000. Sources of revenue include student fees, ten per cent of the daily stipend paid to the students and contributed by the hospitals, reimbursement of salary and travel of professional personnel (at the rate of 50 per cent) received from federal and state vocational funds, and miscellaneous income such as donations.

STATE SUPERVISION

The State Office of Vocational Education consultant service offers assistance in organization and operation of the program; selection of classrooms, laboratory facilities and equipment; negotiations with hospitals; the development of community cooperative relationships; the organization of local advisory committees; inservice training of professional personnel; the development of courses of study and teaching aids; and public relations.

A program of preservice and inservice training, provided by Wayne State University's College of Nursing, has been designated by the State Board of Control for Vocational Education to receive teacher training funds. The staff, in cooperation with the Office of Vocational Education, has worked with the instructional staffs of the area schools in developing uniform curriculum and instructional materials. The curriculum is currently undergoing a revision based on the results of a three-year evaluation study.

A total of 500 to 600 students per year are currently graduating. Since 1947 a total of 4,119 have graduated from the preparatory program and 865 from the extension program. Approximately 65 per cent continue to work in practical nursing, of which 95 per cent are employed in hospitals. The balance are in nursing homes and private duty.

The graduates of all schools are eligible to take the examination for licensed practical nurses. Better than 93 per cent of the graduates pass the state board examinations.

A recent study indicates a need for approximately 4,000 additional nonprofessional nurses by 1960 in Michigan. The eight regional schools enroll from 725 to 825 students per year. If the normal dropout of practical nurses continues, it is apparent that the present facilities will not be adequate. This deficiency may however be met through the establishment of new schools. Applications for schools at two new sites have already been approved and are expected to open during the current school year. Additional funds, recently made available by Congressional action, come at a most opportune time; they are essential to the program's further expansion.

Practical nurse training, offered in 43 area vocational schools throughout the country, is one of the most popular courses provided on an area basis. Students learn nutrition in the laboratory of the Baton Rouge Training School.

HOW WEST VIRGINIA TRAINS FOR INDUSTRY

By OKEY E. McCOURT

McDowell Vocational School, located in the mountainous region of southern West Virginia, is in the very heart of the richest coal field in the world. Here is also the largest coal mining tipple and a many million dollar turnpike that begins nowhere and ends nowhere. This is McDowell County, West Virginia, population 90,000, served by nine high schools located at Welch, Gary, Iaeger, Kimball, Elkhorn, Northfork and War.

McDowell Vocational School is located on route 52 near the city limits of Welch. Students from the various high schools who are selected for vocational education are transported daily to the vocational school where they spend one half of the school day.

In 1950 television in this mountainous area was only talked about. Cable systems had not yet been realized. There was not a television set in the whole county; but an enthusiastic electronics teacher in McDowell Vocational School, Garnett R. Powell, realized the training and placement possibilities in TV servicing among the numerous towns and mining communities throughout the area. So in the spring of 1950 he convinced the vocational school supervisor that his teaching efforts should be directed toward this field.

"The way I see it," Powell explained, "every community in McDowell County will in the next few years have its own TV cable, either community or privately owned. We can get in on the ground floor by training service technicians and our school will not only meeting the needs of a community and an industry, but will provide for dozens of graduates the means of earning a livelihood." This was a point not to be overlooked. The slump in coal mining due to a sluggish market has thrown thousands of workmen out of employment.

Mr. McCourt is Supervisor of Vocational Education, McDowell County, West Va., with offices in Welch.

Throughout the summer of 1950 the electronics department was given a thorough renovation, in anticipation of the fall term. New tools and new equipment were acquired through the State Agency for Surplus Property, headed by Okey M. Cogar, of Charleston, West Virginia.

The County Superintendent of Schools, George W. Bryson, and an Assistant Superintendent, I. J. Powell, entered into the project wholeheartedly. Necessary servicing and testing equipment was purchased.

THE FIRST CLASS

The first class in television servicing enrolled August 30, 1950. Many were one and two year students from the old electronics department. The following spring, Gorman Perry, a two year student from the electronics department, assembled the first television set in the county and picked up a picture momentarily from Greensboro, N. C. A story and a photo of the set, carried by the local paper, resulted in many inquiries. (The builder of this set, Gorman Perry, is presently employed by the Goodyear Atomic Corporation as a technician in the Portsmouth, Ohio, plant.)

During 1951-52, thousands of television sets were purchased and installed in the area. Cable systems sprang up in all the coal mining communities and large towns. TV service men were in great demand. The school had not yet turned out a fully equipped graduate and would not until the spring of 1954 but those students who had served in the old electronics department picked up TV servicing rapidly. Many were employed upon graduation.

Other students were employed evenings and on Saturdays. Typical was a young man from Bradshaw, Gleason Davis, who attended Iaeger High School. He rode the school bus to McDowell Vocational School and attended shop and lecture for three hours each morning, returning to Iaeger for the afternoon, eating his lunch on the 16 mile trip home. Evenings, he went to a local TV repair shop where he earned better than two hundred dollars per month during the school year 1955-56.

THE COOPERATIVE PLAN

Student repairmen were in such demand in 1954-55 that a co-operative plan was devised for seniors in their last semester. Instead of reporting to vocational school they went into local television repair shops where they worked under supervision and were visited at intervals by the instructor. This is a very popular phase of the training program. In 1956 fully one half of the seniors in the class were employed on a co-operative basis and almost one half of the junior class was employed after school in TV shops.

As we enter the 1957 school year, we can recount the success story of many boys who are earning a livelihood from TV servicing. There is Richard Gaminde, of Iaeger, who owns his own TV cable system and manages a prosperous repair center; Tammy Fain, of War, who manages the service department of the Jones-Cornett Electric Company of Welch. Many others work throughout the county. The Welch Electric Company employs three graduates. Wherever TV sets are serviced, McDowell Vocational School graduates are servicing them. Back in the school shop, more and better things are taking place. Modern equipment has been added. The school itself has purchased three complete TV sets for training purposes and the Bendix factory, through its distributor, presented the school with three more of the latest models.

Students who have been on the job for a year now begin to see the practical need for more training. An adult evening class, organized in the fall of 1955, meets two evenings per week. The adult phase has also enrolled many older people, other than graduates from the school, who wished to improve themselves in the servicing field. During 1955-56, 25 adults enrolled in the evening class.

The genuine enthusiasm of the teacher has engulfed the students. Normally the summer is devoted to selecting and orientating new students for fall. Last summer 25 older students returned for work in advanced mathematics and theory. They were turned over to two senior students who did an excellent job as student teachers while the instructor devoted his time to the rookies, selecting and guiding them into the training that will provide the surrounding area with a continuing supply of up-to-date technicians while youth will find a prosperous and lucrative future.

HOW OREGON TRAINS TECHNICIANS

by **W. W. COX, W. D. PURVINE**

Mr. Cox is Director of the Eugene Vocational School and Mr. Purvine serves as Director of the Oregon Technical Institute.

IT'S JUST not practical for all of Oregon's 220 secondary schools to offer extensive vocational programs in industrial and technical education. In many instances a geographical area is served by several small high schools rather than a few large schools. These small schools cannot offer comprehensive vocational programs. Regardless of industrial development, some occupations are sprinkled so lightly throughout the work force that formal public training is impractical unless school district boundaries are disregarded. This is particularly true of technical occupations.

Years ago, Oregon recognized the need for a flexible pattern of vocational education. Enactment of the Regional Vocational School Law in 1941 allowed any secondary unit in the state to operate under area supervision. Provisions of this measure are used in area programs today. Available funds have prevented optimum development for day schools, although progress continues in extension and apprentice classes.

EUGENE

The Eugene Vocational School, 18 years old, was the first area school in Oregon and one of the first on the Pacific Coast. More than 25,000 people, primarily post high school, have been trained there since 1938.

Today it serves some 1500 students a year. Pre-job training is provided in 15 major occupational areas important to the community. Day school enrollment has been from 300 to 400 for each of the last seven years.

Employed workers, including apprentices, get evening instruction, some traveling 30 miles to class. Enrollment, tripled during the last ten years, exceeded 700 in 1955-56, and nearly 500 homemakers went to evening school.

Before this school was started as an experiment, trade preparatory programs in Oregon had been carried on in high schools. In Portland, they centered around Benson Polytechnic High School. Elsewhere they were usually called general industrial. Such classes were offered because most semi-rural communities did not need enough skilled workers in any one occupation to warrant a separate class. Eugene, hardly large enough to support pre-employment instruction to any extent for single occupations, was the county seat of Lane County where population began to assume metropolitan proportions. Eugene school officials and representatives of the State Division of Vocational Education began to think about creating a school zone larger than the Eugene School District.

A survey established a pattern of needs for the area even in a depression. Because out-of-school youth in most instances had to support themselves it was decided the school would *"train them in specific occupations that would give them early earning ability and facilitate placement, after which, if they show interest and desire to broaden their training they can return and continue their work in evening school classes."*

Two instructors were hired in February, 1938, one a part-time director. Thirty students enrolled the first month. Initial instruction centered around evening classes for adults, continuation school classes for young people who had left high school, and a program in carpentry and cabinet making.

The National Defense Training Program started in 1940 while defense training was being formulated nationally. The Eugene Vocational School launched its program almost a month ahead of the federal act.

In 1942-43, a peak of 2805 students attended under more than 60 instructors. The school operated all night 12 months a year. A large number of women were able to enroll because of a nursery school, operated by the home economics department. The school cooperated with the Army in off-reservation training.

The first and only CAA approved aircraft and engine training program in Oregon is at Eugene. Its radio was one of the first educational stations on the coast.

An experiment when started, Eugene's success contributed immeasurably to the enactment of a Regional Vocational School Act by the Oregon Legislature in 1941.

By 1955, some 125,000 people lived and worked within 25 miles of Eugene. The last decade has seen better than an 80 per cent increase. Home of the State University, it is the center of the second largest market in Oregon for people who live on prosperous farms, in modern cities and towns, producing lumber and wood products, agriculture and food processing. The occupational make-up follows the national pat-

In a planning session with a model of the new Eugene Vocational School are, l. to r., Charles Sparks, Advisory Committee Chairman; Dr. Clarence Hines, Eugene School Superintendent, and W. W. Cox, co-author of this article.

tern except that there are more service workers. This is the primary area the Eugene Vocational School serves although such day programs as aircraft and engine and electronics classes place students over a much larger geographical region.

The Eugene area has gained more population this last decade than in the preceding half century. But other factors contribute to the vocational school's growing pains. Even if the population increase was close to national norms, the need for trade and technical education in the booming industrial world would be a challenge. A larger percentage of people in the area work in skilled and technical jobs and industry requires an ever increasing amount of formal training. All of the day prejob programs have had to extend training to two years. Instruction in the electronic and aircraft industries are examples. The CAA approved aircraft program is the only one in Oregon which enhances its statewide appeal. Selected high school juniors and seniors from the Eugene and the other near-by high schools may attend on a half-day basis. This group becomes larger each year. Youth under 21 years of age are admitted free from any place in the state, and adults pay only $10 a month. The school's reputation extends beyond the boundaries of the state. Waiting lists of prospective day students persist, often being three or four times larger than the actual enrollment of the classes involved. Evening school enrollment has also taxed facilities.

Two large surplus barracks were added at the close of World War II. But building additions over the years still do not permit proper expansion.

Years ago, even when industrial development was a far less significant part of the economy, Oregon was providing for trade and technical training. Today, with formal training becoming ever more important, this experience will influence future development. Contributions of area schools cannot be ignored. At least a half-dozen rapidly growing communities have plans to provide programs similar to the Eugene Vocational School and the Oregon Technical Institute.

The State Board of Education is responsible for state leadership and administration of such programs.

The school's advisory committee, of labor, management and the public, appointed by the school board, was not unaware of these problems. In addition to this over-all committee, an occupational advisory committee made up of labor and management works with each occupational area where training is offered. The critical technical demands plus the increasing amount of technical information needed in skilled occupations are factors that make these committees essential. The electronics committee activities are supplemented, for instance, by letters and personal contacts with manufacturers and users of electronic equipment in other areas to make sure the training represents the best thinking possible. A recent mail survey was made of the eight major aircraft manufacturing companies in five states in the West for advice on training needs.

The close coordination maintained with the metal working industry is evidenced by the fact that last year, by telephone, an instructor in one hour placed five first-year students in summer jobs in the industry. They are post-high school students who returned for more training in the fall.

In 1955 the over-all advisory committee recommended a comprehensive survey of the area's training needs. The Eugene School Board in cooperation with the State Division of Vocational Education agreed and the survey report is scheduled for completion this fall. Preliminary findings of door-to-door interviews with some 2200 firms, and all labor organizations in the area, indicate that more than 85 per cent of those contacted approve the current program. New programs, particularly in technical fields, and an expansion of existing activities are requested by certain groups. A follow-up of more than 1100 day students who have attended EVS since 1949 has been conducted. A 70 per cent return of questionnaires indicates solid alumni support.

The school's value is established. The community realizes the need for new and expanded facilities. Finding funds to do the job is going to be the problem. Providing for primary schools, of course, requires most of the available building funds. Some money has been set aside by the Eugene School Board for a new vocational school, and the Advisory Committee has recommended sites. If funds become available, a completely new and larger school will be in existence by 1958.

OREGON TECH

About a decade ago, Oregon looked to the problem of training returning World War II veterans. An out-growth of this study was a state-operated vocational - technical school. How this school serves Oregonians today on an area and statewide basis and in an ever increasing manner is the story of the Oregon Technical Institute, near Klamath Falls.

Placement was the 1956 highlight of operation at Oregon Tech. Scores of employers showed their interest in the 365 graduates by vying with each other for their services. Some undergraduates were also permanently hired upon insistence of employers.

The University of California Radiation Laboratory was one of the new employers most successful in worker recruitment at the school. This atomic energy contractor offered 29 graduates employment by July 1 and was successful in hiring 23. Students selected were from electronics, gunsmithing, machine shop, diesel mechanics, surveying and structural design. An evaluation letter received from the personnel department of the Radiation Laboratory says:

"We are more than pleased with the calibre and the training of the students selected, and we are looking forward to interviewing again next year."

A complete listing of the employers would resemble Who's Who in American Business. Graduates chose from as many as 10 job offers, with the highest number reported at 15 for one individual. Naturally, the majority of these offers are from regional firms and small employers.

A term enrollment of 1072 during the ninth year of operation indicates acceptance of this program. On July 14, 1947, the first students were registered, and during the first year a peak of approximately 500 students was reached. Using the 822-acre hospital facility of the Klamath Falls Marine Recuperation Barracks, the school found a generous campus with little evidence of the military appearance. The site was turned over to the state by the War Assets Administration in May, 1947.

The state apropriation has grown from $620,000 for the first biennial period to $1,657,000 for the present period of July, 1955, to June, 1957.

The acceptance by employers, increased attendance, and more favorable legislative action indicate the

success of the 36 technical and vocational-technical curricula offered.

Oregon Technical Institute is governed by the State Board of Education. The legislation establishing the Institute provides that this Board operate the Institute through the State Division of Vocational Education. Four board members represent each of the state's congressional districts and three are chosen at large. This Board appoints the school's general advisory committee from persons interested in business and agriculture. The State Advisory Committee meets once or twice annually and deals with the broad aspects of administrative policy and educational direction. Departmental and course advisory committees are appointed by the Director of the Institute to coordinate the work and educational services of a group of closely associated major training programs or courses. These committees are usually drawn from the area near the Institute.

Administrative objectives have been molded by legislative action, recommendation of the various advistory committees, the State Board of Education, and by faculty study of business and industry, along with follow-up of graduates. Program offerings are based upon the needs of Oregon businesses, industrial enterprises, and farmers. The most pressing need is used as the basis for establishing new training programs at the time any funds are available. At other times, however, the uniqueness of the need and the lack of any training program in the field favor the establishment of a new curriculum. The sports equipment program (manufacture and repair), geared to the needs of the tourist and recreation industry in the West, is an example of this latter program establishment routine. Diesel mechanics techniology and electronics technology are two which illustrate the former method of choice.

Development of occupational competency in each graduate is the central purpose of the Institute. Most of each student's time is spent in practical application work whether it be in the medical laboratory, machine shop, or television studio. The increasing need of employers for employees with broad occupational intelligence dictates the comparatively extensive offerings in mathematics, sciences and general subjects.

A two-fold purpose in this area of offering is held. First is the dictated need of both the graduate and employer for technical knowledge that underlies the ability to "trouble shoot"—another way of defining the ability to think constructively about mechanical or technical problems.

Graduates of the Surveying Technology curriculum, in the Engineering Associates division of Oregon Technical Institute, have a variety of skills developed in a training program approved by the Engineers' Council for Professional Development.

The second aim is the obvious personal ability needs of the individual in subject matter basic to success in calculating or planning projects and in dealing with others.

An early experience of the Institute revealed that an employer had discharged a graduate of auto mechanics even though he had been an excellent worker. He was dismissed because proper pricing of a job ticket was impossible due to his illegible writing. Such instances highlight the need for a course relationship between the technical or mechanical knowledges and skills, and the communication arts, mathematics and sciences.

The OTI student body sponsors social activities, student groups, a major sports program, a mixed chorus, band, cheer leaders and student body publications. A newspaper, *The Miler*, and a yearbook, *The Owler*, are published by the student body, staff members, and students. A large gymnasium supplies facilities for basketball, volleyball, boxing, weight lifting and wrestling. A six-lane bowling alley and indoor and outdoor rifle and pistol ranges are in use. Emphasis is placed on women's activities. Social programs include receptions, clubs and societies.

Dormitory facilities are maintained for men and women with accommodations ranging from two to four students in a room. Apartments and living accommodations for married couples are available.

The Institute is divided into the schools of Agricultural Technology, Allied Arts and Sciences, Industrial Technology, and Technical Associates. The 1955-56 enrollment of 1254 was distributed with 531 Technical, 670 Industrial, 53 Agricultural. Primary purpose of the School of Allied Arts and Sciences is to provide closely related theory training for students in the other three schools. The State of Oregon provided 1111 students while 139 came from California, Washington, Idaho, Hawaii, Montana, Alaska and Ohio. Four students were from foreign countries.

The Division of Engineering Associates has chiefly male enrollees and is one of the most rapidly growing areas. Major offerings include structural design technology and surveying technology, each approved by the Engineers' Council for Professional Development. Two new programs are sanitation and water technology, and highway technology. Highway technology was offered as a two-year program in September, 1956, at the request of the State Highway Department.

The School of Industrial Technology offers two-year automotive curricula, including machinist, mechanics, electricity and tune-up, and body and fender repair. These are normally technical-terminal and lead to one term of postgraduate work or a third year in advanced technology in each field.

Diesel mechanics is a two-year basic requirement for diesel technology, a three-year program. Diesel mechanics has the largest enrollment in the Institute, having exceeded 200 students annually for three years. Extensive graduate follow-up provided the basis for a curriculum revision that partly explains the fourfold increase in students.

HOW MINNESOTA TRAINS FOR DISTRIBUTION

By WARREN H. HUTCHINS
DE Coordinator, St. Cloud Area Vocational-Technical School, St. Cloud, Minn.

ST. CLOUD, A CITY OF approximately 31,000 people and a suburban population of an additional 10,000, is the county seat of Stearns County. It is located on the Mississippi River in central Minnesota, sixty-five miles northwest of the twin cities, Minneapolis and St. Paul. St. Cloud is known as "The Granite City," ranking second nationally in the production of granite. Other types of manufacturing have increased so that at the present time the volume of manufactured goods exceeds $30,000,000 per year. The city does a large retail business, drawing from an area within a 50-mile radius of St. Cloud. Retail volume is estimated in excess of $67,671,000 and wholesale over $22,100,00. According to statistics presented by the Minnesota State Employment Service, 15 to 18 per cent of the working population are employed in the retail field. An additional 13 to 16 per cent are in the service field.

The program of distributive education in the St. Cloud Area Vocational-Technical School has been determined from the requests of business and the needs of the employees. Objectives have been to provide better trained, better adjusted, happier employees, and improved service to the public. The close cooperation and generous support of owners, employers, and the Board of Education continue to make the program more effective.

Distributive education trainees in St. Cloud have display work facilities in the new H. B. Gough Vocational School.

Vocational training in the distributive field was first placed on an organized basis at Technical High School in the fall of 1937. Formal organization of this program was a direct result of the passage of the George-Deen Act in 1936.

The Minnesota Area Vocational-Technical School Law has been in operation since 1946. Since its passage, eight Minnesota school districts have established approved area vocational-technical schools. These schools, in order of approval, are located in Mankato, St. Cloud, Winona, Duluth, Thief River Falls, Austin, St. Paul, and Minneapolis.

The philosophy of the area vocational school, that it makes available the vocational offerings of the larger, already well established geographical area, has proven to be a practical one for the St. Cloud Public Schools. It has been possible to expand and improve offerings in vocational education, of which the distributive education field is a very important part.

Facilities for offering additional courses and services to the community were greatly improved in 1955 when the H. B. Gough Vocational School was built. In addition to the shops a new cooperative part-time room was included with space and lighting for display work, a model store unit, cash register operation, facilities for individual work projects, and provisions for the use of audio-visual aids. Present facilities make it possible to conduct clinics, short courses, and evening school classes, in addition to the regular day school program.

Robert C. Miller is the Director of Vocational Education, having been in charge of this program since 1943. Warren H. Hutchens has been coordinator of distributive education since 1947.

COURSE OFFERINGS

It is believed that the development of the course content for the various courses offered in the distributive field has followed a pattern that is typical of other area vocational schools. It seems the method is philosophically sound and approved by the Federal and State Agencies of Vocational Education.

Liberal use has been made of the advisory committees in the development of courses offered. The committees have been consulted periodically and occasionally special meetings have been called when specific problems needed consideration.

Two types of local advisory committees have been used. The one used most frequently has been the general advisory committee. This committee is made up of representatives of owners, managers, supervisors, and employers of different kinds of distributive businesses. The second type of advisory committee used has been a committee limited to representatives of one kind of distributive business such as the grocery, variety, or hardware business.

The general advisory committees have been most helpful in suggesting the different kinds of local distributive and service businesses for which vocational instruction may be offered, and the appropriate courses for each line of business. This committee has been very helpful in obtaining the cooperation of employers and employees, and has been an important asset in giving constructive publicity to the vocational training program for distributive workers. The committee has rendered valuable service by suggesting qualified teachers, providing classrooms and demonstration equipment, and by maintaining satisfactory local working conditions in distributive occupations for youth who are enrolled in a cooperative part-time training program.

The committees representing one kind of distributive business have rendered an important service in analyzing the training needs of that business, developing functional instructional material, selection of qualified teachers, and encouragement of distributive workers to enroll in classes or clinics that are offered to meet their specific needs.

The course content for the various courses offered in distributive education is determined in the following manner: the advisory board for that particular area is consulted as to needs and what the various employers feel should be included in the course. The content of the course to be taught is determined by a functional analysis of the work of those enrolled in a class.

TYPES OF COURSES

Some of the courses that have been offered in distributive education in evening school at the St. Cloud Area-Vocational School include: Advertising, Merchandise Display, Retail Selling for Variety Stores, Retail Selling for Grocery Stores, Retail Selling for Department Stores, Retail Selling, Occupational Relations, Show Card Writing (beginning and advanced), and Sales Training for Christmas Extras. The courses offered for students still in high school include Occupational Relations for distributive education students working on the cooperative part-time program, Sales Training for Christmas Extras for those students working after school and Saturdays during the Christmas season, and Pre-Employment Training and Salesmanship for those students who wish to enroll in the cooperative part-time program the following year or those students who are completing their formal school training with the present school year.

The course in Pre-Employment Training for potential enrollees of the cooperative part-time program and those students completing their formal training was organized as a result of a general advisory committee meeting. At this meeting members of the advisory committee were concerned about some of the shortcomings of beginning workers in the distributive field. The question was raised as to what could be taught to better prepare these students for entry into work in distribution.

A survey was made to find the most obvious shortcomings with which students were handicapped when starting their first job. The results of the survey listed many suggested units to help students to be successful on their first job. Among the units recommended most frequently were: the ability to meet people, employer-employee relations, courtesy—business etiquette; fundamentals of arithmetic, personal appearance, and proper job attitudes. Others included acceptance of responsibility, how to apply for a job, handling money and the operation of cash registers, salesmanship, and wrapping and packaging.

The pre-employment training program offered during the day to regular high school students was developed from the recommendations of the employers as a result of the survey. Each year employers are contacted to check on the effectiveness of this type of training and to get their suggestions for improvement.

It has always been the policy of the Board of Education to offer courses in any area of distributive education if ten or more people are interested and desire the formation of these classes—provided a suitable instructor can be secured. In the future tentative plans include an expanded offering of courses in the various businesses, clinics for businesses with similar problems and increased offerings of courses in the adult evening school program.

RESULTS

The new H. B. Gough Vocational School Building is a practical illustration of the growth of vocational education including distributive education in the St. Cloud area. However, the true measure of the results of this type of education is represented by the managers, assistant managers, buyers, salesmen, and many others who were able to get a start in the business world through the offerings in distributive education. Since 1937, when 16 students were enrolled, 1054 students have completed the cooperative training program, over half of that number being in the distributive field. Many more have been enrolled in the evening school courses. Thirty to 40 students enroll in the Sales Training for Christmas Extra's program each year. An additional 60 to 70 students enroll in the salesmanship and is the pre-employment training course each year.

SUCCESS STORIES

Success stories of graduates and others completing the various distributive courses are many and varied. Many graduates have continued as boosters for this type of education and have either served on advisory boards or have provided training stations for new employees.

One of the many graduates who deserves recognition is Jack Bartlett, class of 1939. Jack worked for the National Bushing and Parts Company as a stock boy his last year in high school. He stayed with the company, working his way up from stock work, machine shop, counter sales, stock control, selling, and in 1950 became manager of the St. Cloud branch. At the present time he is also supervising the store in Little Falls in addition to his work in St. Cloud. He has consistently hired promising students who have been interested in the wholesale-retail auto parts business. When asked what he thought of this kind of training, Mr. Bartlett said, "It gives a student an opportunity to find out whether this line of work is really what he wants, he learns to give a day's work for a day's pay, and he earns while he learns, thus making it possible for many students to finish high school who otherwise would not be able to finish because of financial problems."

The effectiveness and success of the offerings in distributive education today will have an important bearing upon the need and desire for this type of training tomorrow.

The manager of the St. Cloud branch, National Bushing and Parts Co., who is a successful product of the distributive education program, hires promising DE trainees who have displayed an active interest in the auto parts business.

HOW LOU TRAINS F

AREA VOCATIONAL SCHOOLS can provide the vocational training needs of less than college grade for industry, business, agriculture and the home. Especially can these schools provide the needs that cannot be met by vocational schools at the local level. They are doing it in Louisiana. They have been doing it for more than 20 years.

The 25 area vocational schools in Louisiana, under the jurisdiction of the State Board for Vocational Education, provide programs of education and training to meet the needs of the people in the service area. Since two or more parishes (counties) are included in each area, this means that the curriculum is broad enough in each school to provide vocaitonal training in the principal occupations represented.

There is no conflict between the area vocational school and programs of secondary education provided at the local school level. They lend themselves to each other in a cooperative fashion. Vocational programs as integral parts of local schools often use the area school's facilities and faculty for certain specialized training in the vocations that cannot be provided for at the local level. Likewise, area vocational schools use the local schools for various purposes when it is necessary to take information and training programs to the communities represented.

The business of farming is becoming progressively more mechanized as time advances. New scientific discoveries in the broad field of agriculture necessitate new practices in farming. Training present and prospective farmers for efficiency in production and marketing is a *must* in America.

Louisiana's area vocational schools are providing agriculture training to meet the needs of farming in the area served. These needs are met in part by the vocational agriculture programs in the rural schools. But the highly technical side of vocational training needs is often beyond the ability of the local vocational agriculture instructor and the facilities of his school.

Before the beginning of World War II, not more than 20 per cent of the farming in Louisiana was done with tractors and power implements. Today, a conservative estimate indicates that less than ten per cent of farming is done by mule or horse-drawn implements. This radical change that has taken place in little more than a decade has brought with it many problems in farming. Some of these are being solved by local vocational agriculture programs in the high schools. But many of them cannot be solved without the help of area vocational schools.

In 1950, the Louisiana sugar planters came to the State Department of Education for assistance in solving a serious problem. Most planters had converted to power equipment for planting, cultivating and harvesting sugar cane. More than $3,000 was invested by the planters in machinery for each farm employee. In a short period of time, field hands had been taken from behind a plow, drawn by mules, and placed on a tractor with power equipment.

Sugar planters were experiencing up to 45 per cent of the original cost of the equipment for maintenance during one season. Their operators had not been trained in service maintenance of the equipment.

The area vocational schools were the answer to the problem. Clinics were conducted throughout the sugar belt and more than a thousand operators were trained in operating and service maintenance of tractors and tractor-drawn equipment.

Teachers of vocational agriculture were given short, intensive training programs in the area schools in the servicing of farm tractors and equipment. They went back to their respective schools and helped in the instructional program.

In less than a year there was a remarkable improvement in the efficiency of the power equipment on the sugar plantations. Many thousands of dollars were saved because of the instructional program. It could not have been done without benefit of the area vocational schools.

Area vocational schools serving rural areas are provided with mobile shop units equipped to provide the training needed for farm mechanics on the farm. The instructor takes his shop to the farmers. Regularly scheduled classes are conducted for farmers throughout the area. In some cases teachers of vocational agriculture at the high schools help him in organizing classes. In many cases he provides instruction in schools that are not served by vocational agriculture schools.

His mobile unit is equipped with arc welding facilities, as well as drill presses, grinders, hand tools and other equipment needed to teach farm machinery repair. Through this medium more than 15,000 farmers have been given direct instruction in farm machinery and repair during the past five years.

Farm mechanization has brought about the establishment of hundreds of implement dealers and repair shops throughout the State of Louisiana within the past decade. The providing of trained personnel to work in these establishments has been solved through the area vocational school program.

Farm implement and tractor repair programs on a day school basis are offered in several of the Louisiana area vocational schools. Mechanics are trained for employment in business establishments, as well as repair shops. Placement has been almost 100 percent for all persons trained during the past several years.

An instructional materials laboratory develops and produces most of the material used in the state-operated trade schools. Outstanding instructors do most of the writing while in some instances state apprenticeship committees and trade associations have participated in the cost of outside writers.

It should be pointed out that Louisiana area vocational schools are not limited to programs of training in the field of agriculture. Any and all vocational training of less than college grade, needed by the people residing in the service area can be provided for in the area schools. They serve both the adult population and at the same time provide vocational training for boys and girls

By A. E. ROBINSON
Louisiana State Director
of Vocational Education

MECHANICS

of high school age. The following is the enrollment experience of high school students in area vocational schools since 1948:

YEAR	HIGH SCHOOL STUDENTS
1948-1949	533
1949-1950	856
1950-1951	1,371
1951-1952	1,741
1952-1953	2,396
1953-1954	2,695
1954-1955	2,798

Participation by adults in the area vocational schools was as follows:

YEAR	ADULT STUDENTS
1948-1949	7,495
1949-1950	10,304
1950-1951	12,059
1951-1952	13,542
1952-1953	17,751
1953-1954	20,519
1954-1955	24,851

COURSES OFFERED

There has been an increase of 177 per cent in the number of courses offered in the area vocational schools since 1948 and an increase of 55 per cent in the type of courses. Courses taught by the various schools in 1954-1955 included:

Appliance repair, auto body repair, auto mechanics, barbering, beauty culture, brick masonry, business training, industrial training, industrial chemistry, industrial engines, machine shop, offset printing, oil well drilling, plumbing, practical nursing, printing, radio-TV, cabinetmaking, carpentry (bldg. trades), diesel, distributive education, drafting electricity, farm mechanics, railway station management, refrigeration and air conditioning, small engine repair, sheetmetal, tractor mechanics, upholstery, watchmaking and welding.

A typical farm mechanics mobile unit used for the Louisiana area vocational school programs.

Farm mechanics students perform service operations on a tractor motor unit.

Interior view of the unique farm mechanics mobile unit.

FARM MECHANICS INSTRUCTIONAL PROGRAMS IN LOUISIANA

AREA SCHOOL	PRE-EMPLOYMENT	EVENING	MOBILE UNIT
Avoyelles Parish Trade School	x	x	
Bienville Trade School	x		x
Capitol Area Vocational School	x		x
Concordia Parish Trade School	x		x
Franklin Parish Trade School	x	x	
T. H. Harris Vocational Technical School			x
Iberia Trade School			x
Memorial Area Vocational School			x
Natchitoches Trade School	x	x	
Ouachita Valley Vocational School		x	
Sabine Parish Trade School	x		x
The Florida Parishes Vocational School	x		x
Sullivan Memorial Trade School	x	x	

HOW VERMONT TRAINS FARMERS

BY RICHMOND YOUNG
Principal, Vermont State School of Agriculture, Randolph Center

THE Vermont State School of Agriculture, opened September 26, 1911 to provide practical training in agriculture for young men is under the supervision and control of the State Board of Education. Located at nearly the geographical center of the state it is in one of the most scenic spots in the Green Mountains.

Its purpose, as approved by the state legislature, is for developing the agricultural resources of the state through practical instruction in agriculture, including tillage, crop raising, gardening, orcharding, forestry, dairying, stock raising, poultry, farm management, marketing, and the allied subjects of domestic science and the manual arts.

The objectives of the school are first, to provide the necessary facilities and instruction so that every student may acquire the many skills, abilities and experiences necessary for success in his chosen vocation; second, to provide an atmosphere and environment so that each student may become a worthy citizen.

The facilities include the conventional school buildings such as dormitory, classroom building, farm shop building, and a gymnasium which is now under construction. Also, a school farm of 267 acres with a modern dairy barn, livestock processing building, brooder house, horticulture building, greenhouse, poultry houses, and a general livestock barn. The livestock and crop programs have been developed as adapted to the area and practices carried out as approved by the State Experiment Station and recommended by the Extension Service.

The school farm, where boys are shown at work, covers a total of 267 acres.

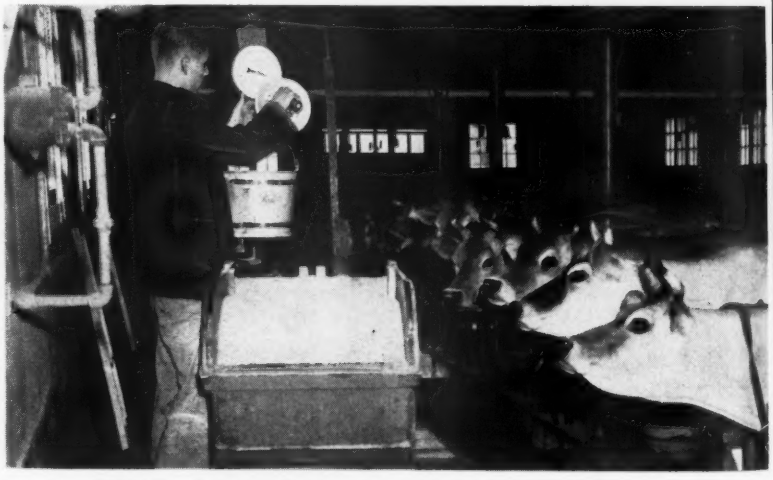
The instructional program has been developed in such a way as to carry out the purposes and objectives of the School. Also, the usual extra-curricular activities, common to a total school program are made available. The personnel to handle the program includes six instructors and twelve staff members. On the basis of facilities and personnel available the school is adequate to accommodate 100 students.

Changes in general agricultural conditions and trends necessitate changes in curriculum offerings and subject matter material. These changes are developing because of what can be called "mechanized agriculture" and "economic agriculture." The equipment being manufactured today for farm use is causing an increase in efficiency and an increase in production of farm products. The need for farm records is increasing. Thus, the efficient farmer needs to be a relatively competent mechanic and economist. In view of these conditions we find some of the small farmers going out of business and the large farmer expanding.

The result of conditions as just described might indicate that fewer people will need to be trained for agricultural production. On the other hand, the services needed might appear to be increasing and more people should be trained for these related occupations. These people trained on the technical school level could be classified as "technicians" in the various fields of engineering, seed, feed and fertilizer. Specialists in the field would no doubt be college trained people.

The State School of Agriculture has given emphasis in the past and to date largely to agricultural production. Those interested in training for related services should know that with changes being made in the offerings of the school program they can be trained for these positions. A general agricultural background, however, should be beneficial to anyone in the related services working in agricultural production.

The Vermont agricultural plant includes all modern dairy barn facilities (below).



In looking to the future it is possible that training for technicians in industry and other allied fields might be made available at the School. A study of this is being made by John E. Nelson, State Director of Vocational Education.

HOW NEW JERSEY OFFERS GUIDANCE

THE BOARD OF EDUCATION of the Vocational Schools of Essex County, New Jersey, operates five schools in the heart of a highly industrialized, metropolitan area. The Essex County Vocational and Technical Schools offer a variety of educational opportunities to meet the needs of the students seeking education and of the business and industrial concerns seeking technicians and skilled workers.

The Vocational and Technical High Schools in Essex County are organized so that students may enter them after completion of the 8th, 9th, or 10th year of school in any local district and without loss of time earn a vocational or technical high school diploma. The county schools have eliminated any courses which local districts acting independently can give as effectively as the county could. For example, the county schools offer no commercial programs except courses such as *Technical Secretarial* and *Business Machines* which require very special equipment and techniques that could probably not be duplicated in many local schools.

Five levels of vocational education are offered to youth and adults in the county. The vocational high schools are specialized high schools which prepare for jobs in skilled trades and include shopwork, related science, and mathematics along with general courses in English, social studies, health, etc. (*Automotive Repair and Service, Cabinet Making, Food Service, Business Practices, Commercial Art* are examples of these curricula.) Vocational technical high school courses prepare students for technical and semi-professional occupations, with greater emphasis on science and mathematics (*Technical Industrial Electricity, Aeronautics, Technical Secretary,* etc.). Adult technical courses require high school graduation or equivalent and prepare intensively for specialized technical positions (*Mechanical Technology, Dental Assistance, Drafting and Machine Design, Executive Secretary*). Evening school courses consist of a series of short units of instruction which the worker can select to meet his immediate or future needs (*Machine Tool Operation, Printing, Radio Service, Beauty Culture,* business courses). Apprenticeship courses are four-year cooperative courses, in which the apprentice spends 4 to 6 hours a week in school (bricklayers, carpenters, electricians, plumbers, auto mechanics, painters, etc.). Last year the Essex County Vocational and Technical Schools enrolled 2114 students in preparatory training, 1927 in extension courses, 966 apprentices, and 85 in supervisory training and police program. Total expenditure was $1,543,556 (80 per cent of which was derived from local tax sources), at an average cost per day for day school students of $3.16 and an average cost per hour for evening school students of $1.12. Twenty-five advisory committees held 90 meetings last year to keep programs functioning effectively.

THE GUIDANCE PROGRAM

In the final analysis, a vocational school is only as good as its placement record. Buildings, equipment, staff, instructional materials — no matter how up-to-date — are not impressive if the graduates of the school are not finding jobs in the occupations for which they were trained.

In the Essex, New Jersey, county vocational school system guidance and placement operations occupy a top position. The county's Department of Guidance and Placement is an outstanding example of the services that can be performed when training operations for a large area are centered in a single unit.

The Department of Guidance and Placement in the Essex County Vocational and Technical High Schools is maintained primarily for the purpose of assisting the youth of the county in making desirable adjustments to the business, industrial, and professional life of the community. The services rendered by the Department are available to any youth residing in the county, between 16 and 21 years of age, and to any veteran interested in vocational or technical training.

The Department's functions are numerous. It assumes responsibility for the guidance and counseling of youth in matters of training and employment. Investigations and studies of employment opportunities and trends are made to assist the vocational schools in curriculum adjustment. Students are recruited for both the day and evening schools. It operates a counseling service for veterans. It is responsible for the supervision of the guidance and placement functions in the several vocational schools and for the selection, admission, and transfer of students into and out of the Essex County Vocational and Technical High Schools.

The functions of guidance and placement and the activities related to these are organized under the Supervisor of Guidance and Placement. The Supervisor is assisted by several counselors, one of whom devotes a good part of his time to veteran activities. The responsibilities of the counselors include the interviewing of applicants for employment and the coordination of school and placement activities with employers of the county.

COUNSELING

Because students enter the vocational and technical high schools from local school districts in the county, it is necessary to provide these high schools with complete information about the benefits to be derived from vocational training and the specific courses offered.

A Guide for Counselors has been prepared by the staff of the Department of Guidance and Placement of the Essex County Vocational Schools for the primary purpose of giving specific information about job opportunities in the area and courses which are suitable as preparation. The 250-page book is limited to those fields in which instruction is offered by the Essex County Vocational Schools and is of inestimable help to all school representatives who counsel with the students regarding employment and specialized training.

The *Guide for Counselors,* which is a unique example of a localized guidance tool, includes locations of the schools, objectives of vocational and technical high schools, general entrance requirements, information

---

This article was prepared from material submitted by George Morgenroth, Director, Essex County Vocational Schools, N. J. While New Jersey's area program consists of a variety of offerings, the guidance phase only is covered here.

about transportation, tuition, hours, meals, student activities, etc. It also has detailed information about each course of instruction, including: definition; list of basic, intermediate, and advanced job opportunities; placement opportunities; description of course (length, entrance requirements, cost, diploma, and where offered); and a specific program of studies.

PLACEMENT

The first element in the process of guidance is that of properly analyzing the abilities, interests, and preparation of the individual who seeks placement. To accomplish this, Essex County counselors interview personnally every applicant. The information obtained is kept on Applicant Registration Cards, which are filed alphabetically, separate files being maintained for young men and young women. A request for information is mailed to the last school attended by the applicant and this information is added to the Registration Card. If the applicant has had previous work experience, a request in the form of a Work Record Card is sent to the employer for information concerning the work performed and the quality of service rendered. Additional information obtained, together with any action taken in the guidance and placement process, is recorded on the Registration Card.

Job opportunities are recorded on an Employer Order Card, as they are received. All referrals are noted on reverse side of this card. An occupational crossfile system is maintained as an aid in the selection of applicants for job opportunities.

While it is important to have complete information about the individual seeking placement, it is likewise important to know the employer. To this end, a file of employer data has been compiled for use by the Department, and a Firm Information Card is prepared for each employer who has used the services of the Department or has been contacted by a member of the staff.

In order to effectively carry on the guidance and placement program, it is necessary for the counselors to have a complete knowledge of all types of jobs and to keep abreast of changes in various occupations. To accomplish this, a library of guidance and occupational books is maintained. In addition, there is an up-to-date pamphlet library of occupational and guidance material. Applicants, teachers, and other school counselors are free to consult this material.

Typical Placement Record for Individual Classes, Essex County, N. J., 1956

Name of course	*No. available for employment*	*% Employed in trade for which trained*	*Average hourly wage*
Printing	11	100	1.32
Tool & Die Making	11	81	1.33
Electrical Trades	10	80	1.00
Carpentry	17	76	1.33
Beauty Culture	62	96	1.20
Medical Assistant	16	88	1.20
Technical Secretary	26	100	1.16
Practical Nursing	53	98	1.22

The record of placements for graduates of the training programs in the vocational and technical schools in Essex County is impressive.[1] Making use of the system described above for those who have completed courses in the county's five area vocational schools, the Department can report placement totals last spring for 470 all-day trade students of 72 per cent, 77 per cent, 79 per cent, 80 per cent, and 89 per cent.

FOLLOW-UP

Placement cannot be carried on successfully without follow-up. There is a definite relationship between the two which is recognized in Essex County as vital to the success of the placement program.

The Department of Guidance and Placement recognizes the fact that the young, inexperienced worker faces many problems of adjustment in his initial employment experiences which he finds difficult to overcome without the aid of someone qualified to advise him. Through the program of follow-up and counseling, the Department finds itself in a much better position to analyze these difficulties and to assist the individual until he makes the necessary adjustments.

Six months after an individual has been placed in a position, requests for information are sent both to the new employee and to the employer (with a stamped, self-addressed envelope to facilitate and encourage prompt replies). The Department offers assistance to the new employee in solving any problems in connection with the position and, by offering advice regarding courses available in the county's vocational and technical schools, encourages further education and training in preparation for advancement.

An annual placement form is sent to all vocational school graduates and certificated students. In addition to requesting information about present employment status, the form asks such questions as "Have you used your training in a position since graduation?" and "If you had it to do all over again, what trade would you train for?"

Individual placement records of graduates are kept for a period of four years. They are used for statistical purposes. Through this kind of follow-up of the individual on the job, and through numerous contacts with employers regarding work opportunities, valuable information is obtained which has very definite bearing on the education and training facilities in the community. This information is utilized to make the program of education more effective.

PUBLICITY

The Department prepares and issues monthly a bulletin entitled *Guidance Information,* which contains vocational information helpful to principals, teachers, and counselors. The responsibility for preparing and distributing all vocational school bulletins rests with this Department also. Much of the publicity pertaining to the Vocational and Technical High Schools and the Adult Technical Schools has its origin in this Department.

[1] Information about placement was requested in AVA's survey, and 77 schools reported detailed figures concerning their graduates. The information has not as yet been completely analyzed, however, and could not be included in this issue of the JOURNAL. A full report of the area school's placement services and records will be included in the bulletin on area vocational schools to be published by the AVA next year.

HOW VIRGINIA TRAINS FOR BUSINESS

By L. A. HILL
Director, Danville Technical Institute, Danville, Va.

THE DANVILLE TECHNICAL INSTITUTE is located in a community of 50,000 which is the trade area of a much larger population. Danville is an important tobacco sales center and is the home of a large textile manufacturing company.

Before 1950, the only business courses offered locally to high school graduates were a two and a four-year course. The Technical Institute course was started in 1950 in order to provide a one-year program in which boys and girls could specialize for office jobs. By this time the Technical Institute had been well established with departments in air conditioning and refrigeration, auto mechanics, cosmetology, machine shop, printing, and radio and electronics.

After some research, it was found that a number of high school graduates did not receive sufficient business training while in high school to qualify for secretarial positions or for bookkeeping and accounting positions. A community survey was made to find the type of positions open and the desired skills and knowledge required to fill these positions. With this information in hand, a visit was made to schools out of the Danville area which offered one-year courses to high school graduates. The offerings of these schools were studied, and, with the aid of the state supervisor of business education, our business program was planned.

The first year the curriculum offered was as follows: general office practice, secretarial science, and bookkeeping and accounting.

The general office practice course was set up for nine months and included business mathematics, English, typewriting, bookkeeping, filing, office machines, and office procedures.

The secretarial science course included all material in the general office practice plus shorthand. This was a twelve-month course.

The bookkeeping course included all the material in the general office practice course with accounting, business law, and business economics added. This was a twelve-month course.

The entrance requirement is high school graduation. We do not require the high school graduate to have had any credits in business subjects. Most of the students, however, do have one year of high school typing.

We did not find enough students interested in the general office practice course, and consequently it was dropped after the second year.

The state supervisor of business education suggested that we consider putting in a cooperative work training program. A survey was made to see if part-time employment would be available for the students who had completed the first half of each of the two courses. It showed that the employers would have part-time work available. This new program was started in September 1952.

Accounting and Junior Executive

The bookkeeping and accounting course was changed to accounting and junior executive training. The following paragraph describes the accounting and junior executive course.

The one-year course in accounting and junior executive training is planned for those who wish positions as bookkeepers or accountants. Today these workers are often made partners in organizations or are promoted to junior executive positions. For this reason, they are expected to be prepared to keep records of all types of financial activities of the business. This requires an understanding of all financial activities and the city, state, and federal laws which affect a business. In preparation for these responsibilities, courses in bookkeeping, accounting, business law, credits, and collections are studied two or more hours each day. In addition, the students learn to use office machines. This study and practice of office machines includes adding, calculating, and posting machines.

Because the accountant is often the office manager and supervises all the other office workers, the course provides training in business ethics and in business organization and management. The knowledge of business organization is important to growth on the job.

Secretarial Science

Danville Technical Institute's current one year secretarial course is planned for those who wish to train for positions as secretaries. Since secretaries are expected to type rapidly and accurately, two hours of typing instruction and practice are provided each day for the first three months. For the remaining eight months, typing is taught one hour each day.

To receive the shorthand instruction they need, secretarial students spend two hours in shorthand each day during the entire course. This includes shorthand instruction, dictation, and transcription.

To prepare them for the other duties expected of secretaries, they study bookkeeping, use of office machines, filing, business English and business economics. The study of these courses plus work experience qualifies them for secretarial positions upon graduation. When the pupils are graduated from this course and apply for jobs, they are able to say they have had a full year of specialized business training, as well as experience in office work.

Any person who has had, prior to enrolling at DTI, two years of typing, and one year of shorthand, and who can, at the conclusion of three terms rather than the regularly required four, type for ten minutes at the rate of 60 words a minute with a maximum of five errors and can take dictation on new material at the rate of 120 words a minute and transcribe accurately will be eligible for graduation at that time. In addition, he must have a grade average of B, with no grade lower than a B in English.

Students Sell the Program

Merle Pippin was employed part time by a local wholesale hardware company in February, 1956. This firm contacted DTI three months later about employing another girl on a part-time basis until graduation, with the expectation of employing both girls full time if their work should prove satisfactory. Jeanette Millner was immediately hired, and

both Merle and Jeanette became full-time workers in bookkeeping, secretarial, and general office work in August upon completion of the training course.

In February, Memorial Hospital employed Mary Frances Elliott to do filing and clerical work full time after she had completed only half of the course. Since that time, the hospital hired another DTI student for full time, and two others for part-time office work as bookkeepers, file clerks, and typists until they were able to go to work full time after they graduated in August.

The Danville Technical Institute is one of three public schools in the state of Virginia which offers vocational office training on a post-high school level. Our program differs from the high school level in two aspects. One, our students are older, and, two, our students do not begin their on-the-job training until the second half of their second year. Our students' age-range is from 16 to 46 years of age. The highest concentration is between 18 and 22.

We feel that we have some definite advantages because our students are older. Most of them have been out of high school long enough to have recognized the advantages the trained student has over the untrained. Some have worked at unskilled and semi-skilled jobs before entering our department. The majority of these students are serious about their work when they enroll in either of our courses. They have hard-earned dollars of their own which they spend with the intention of an equitable educational return. Working with people who are interested is, indeed, a pleasure.

The student at age 46 was a retired army major who had two earlier years of college training. He recognized the fact that the business world had changed since he was at last a civilian and entered our program for a refresher course. He is now operating a television sales and service store.

Then, there was a widow of 42 who found that she was unable to support herself after her husband passed away. She took our one-year secretarial science course and has since found a place in society where she is an asset to our community rather than a potential liability.

Students of these ages are the exception rather than the rule and are mentioned only to stress the wide range of needs which a post-high school business class can meet.

Because our course is a full one-year program, we do not place our students on a part-time co-operative work basis until the beginning of the second half of our school year. Our ideas behind this have proven helpful to the student, the school, and the community.

We feel that after the student has had six months' training on a post high school level he has more to offer his co-operative employer than one with little or no previous training. He can generally command a higher wage because of his age and ability. He is more mature and, consequently, a more serious student-employee.

Our VOT program has been one of the most appealing parts of our program. This on-the-job experience not only affords the student actual office experiences but gives him a chance to earn money to defray his school expenses.

This on-the-job training also gives our students a chance to discover their real interest and abilities before they step into a full-time position. By gaining real life office experience with our VOT program, the student equips himself with the "know-how" and self-confidence needed for office job promotions.

Is our program paying off in dividends to the student, to the employer, and to the community? We say "Yes."

We respect our business leaders, aand they show their respect for our school program by their continued requests for graduates. Unfortunately, their demands have exceeded our supply of trained students. We keep a file on our past graduates and often refer to it when we have a request for an office position. Aside from our girls who have gone into housekeeping and the men who are in the armed forces, our graduates are applying their training in real life success stories.

Successful Graduates

Take Melville Radford, for instance. In 1952 when he entered our program, he was seventeen years of age. He had had no previous office training or experience. Today at twenty-one years of age, he is one of the nation's youngest officers of an industrial loan corporation. Melville took our secretarial science course. He says that he certainly owes his success to his knowledge in office training.

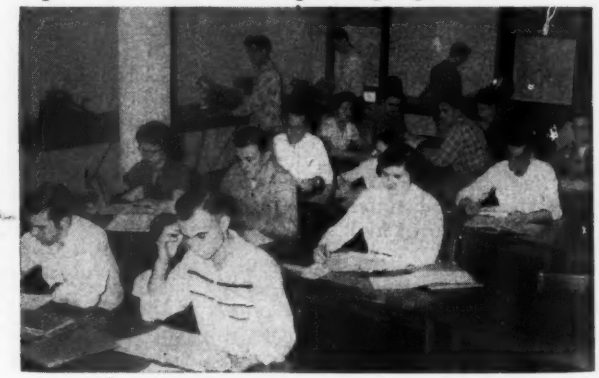
Several of our local banks take advantage of our department for a continuous source of office clerks and typists. It is a nice feeling to walk into a bank and see familiar faces. Mona Lane, one of our graduates of last year, is thrilled with her job. She explains that her training has helped her win promotions over her fellow employees, and, in addition, has brought higher pay and self-confidence.

Mona's twin sister, who was born with only one hand, is another of our graduates who has found happiness and success through office training. She is a billing clerk with our city utilities department. Her employer explains, "Cecile sets the pace for our other girls and can turn out as many bills on her machine as anyone I have in this office."

"It's been the key to my whole future since I got out of the service," says twenty-seven-year-old army veteran James Crane who is sales manager of a wholesale tire company. "You can't say anything bad about a program that trains you and then gets you the job after you are trained," he said. James explains that he was "lost" when he was first discharged, but found himself at the Danville Technical Institute.

Of course, the Danville Technical Institute has its drop-outs, too, but we are happy to say the percentage is low; and we are getting a snowballing effect from past student-employee relations which are building our program.

After graduation this year, all of our part-time students will be working full time for their cooperative employers. "Yes," we say, "the proof is in the pudding, and from where we sit, the pudding is good!"



Business training is an important part of the vocational offerings in Wisconsin's area program, also. This scene is from a post-high school training class in accounting at the Eau Claire Vocational and Adult School.

HOW COLORADO TRAINS HOMEMAKERS

By HORACE WUBBEN
President, Mesa County Junior College

HOME ECONOMICS EDUCATION is offered on an area basis at Mesa College, a public junior college located in Grand Junction, Colorado. Approximately 325 of the 557 day students come from within Mesa County. Some 232 come from nearby counties. Thus, in terms of student origins, it is an area program.

A director of adult and vocational education, employed by the college, heads the program. The college and the Mesa County Valley School District have operated the adult and vocational programs jointly with the vocational director and his assistant who were employed and paid out of local and state vocational funds. Beginning this fall the college will be solely responsible for the adult program and its own vocational work.

TWO DIVISIONS

The work in the home economics field of less than college grade consists of two chief divisions: a program for day school students and a program for adults, the latter chiefly at night. In the first division the classes, conducted by the home economics instructor, are terminal in nature. Most of them are reimbursed by the State Board of Vocational Education. Credit toward graduation from Mesa College is given but may not be transferred to a four year institution for credit toward a baccalaureate degree. During the past year 35 students took this work the first quarter, 42 the second, and 54 the third quarter.

In the second, or adult, division many more students were enrolled. Two hundred and seventy were enrolled for various phases of home economics work in the three quarters of the college year. As with the day program most of these classes were reimbursed from state and federal funds.

A description of each of the courses offered will make more clear how they attempt to function in preparing young women for homemaking.

Color and Design—Study of principles of color and design and their application to personal living. Making of original designs emphasized.

Textiles—Study of textile fabrics and fibers with emphasis on selection, care and wearing qualities of clothing.

Clothing Construction—Basic construction processes are studied and developed through the making of garments to meet individual needs.

Costume Selection—The relationship of the principles of design to the planning and selection of clothing.

Nutrition—The study of foods with emphasis on the use of food in the body, the planning of well-balanced meals, and the digestion and absorption of foods.

Foods for Special Occasions—Planning and preparing foods for special occasions with emphasis on table setting, service and manners.

Home Management — Study of family-living problems with emphasis on management, child care, personal and family relationships.

House Planning and Home Furnishings—Study of house plans, types and construction practices; home decoration and furnishings.

Food Selection and Preparation—A study of food values and food costs. Principles and techniques of preparing all types of foods with emphasis on nutrition.

Preparation and Serving of Meals—Planning, preparing and serving family meals.

The college last year spent some $6,000 in remodeling the home economics suite which made it the most attractive area on the campus. The newly decorated and modern environment has become a social center for the women.

Among the annual events sponsored by the department are the style show and make-it-yourself-with-wool contests. These affairs are area-wide in interest and provide a stimulus for much of the year's work.

Counseling by the instructor forms an important aspect of the program. Some of the students go on to advanced college work. More get married and put into actual home usage the functional learning they have acquired.

THE DEMAND

Shortly after World War II there was an increased demand for evening courses in homemaking educa-

(*Continued on page 31*)

Colorado's Mesa College trains girls from Mesa County and nearby counties in the arts of homemaking. Two programs, one for day school students and one for adults, exist. Some of the students go on to advanced college work.

HOW RHODE ISLAND PLANS FOR THE FUTURE

By F. SHELDON DAVIS
Rhode Island State Director of Vocational Education

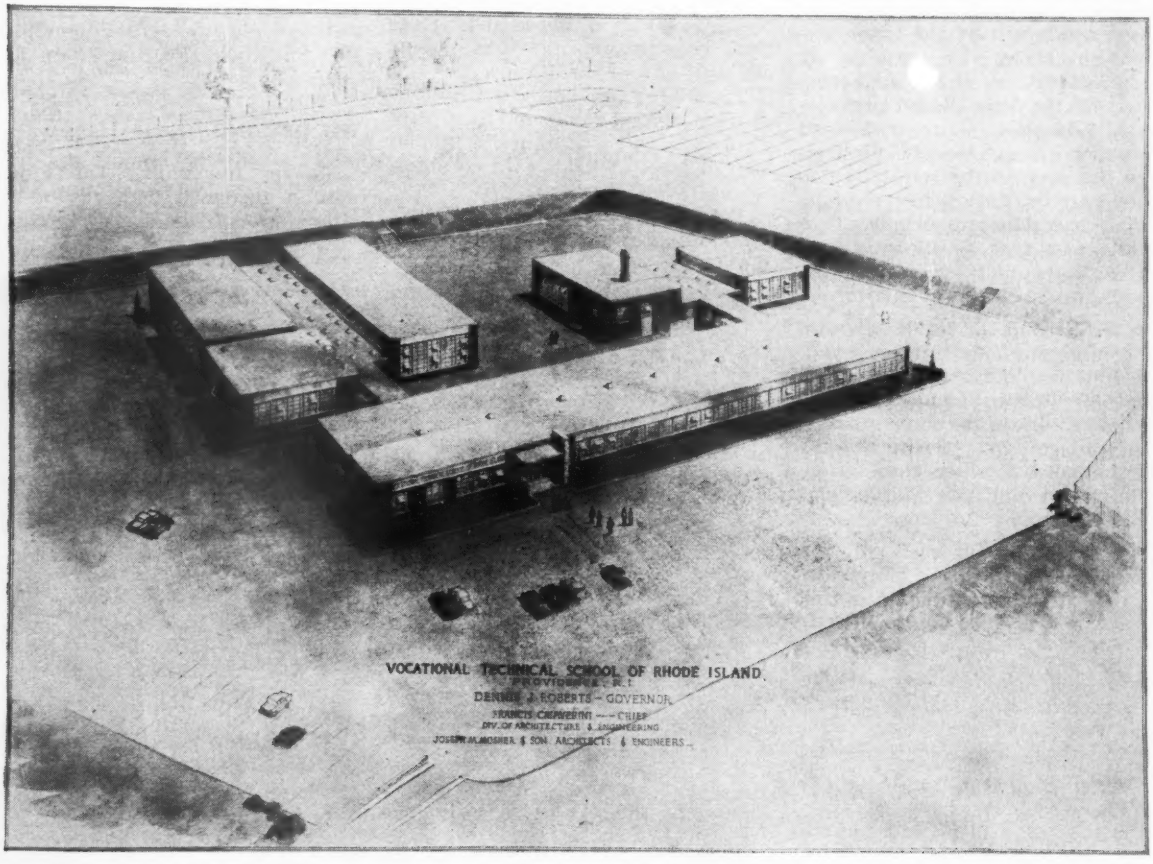
RHODE ISLAND is the smallest state in the Union and is highly industrialized, specializing in the manufacture of textiles, jewelry and machinery. It is comprised of thirty-nine cities and towns, each having its own school committee and superintendent, and vocational training is not available in thirteen of the towns.

To meet these needs on a statewide basis the construction of the Rhode Island Vocational Technical School has been authorized under a bond issue which was overwhelmingly approved by the voters of the state. It is to be the first state operated area vocational school in Rhode Island and will serve as a pilot for future expansion.

The school is being established as a result of needs which were shown in two surveys instigated by the State Department of Education. The first report, in 1950, was developed by four state vocational directors, consultants from the United States Office of Education, and members of the Vocational Education Division of the State Department of Education. In 1953 a second report was developed as a result of seven area meetings conducted by the state vocational staff. These were attended by local school administrators, business men, labor representatives and the public.

These two reports were presented to the Governor of the State and the General Assembly who appointed a special committee composed of one member of the Senate, one member of the House of Representatives, two educators, two representatives of labor, two representatives of industry, and one representative of agriculture to study vocational needs in Rhode Island. The recommendation of the special committee follows.

"With due consideration given to the population of Rhode Island, the cost of Vocational Education, the efficiency of operation and the equalization of opportunity for the citizens of the state, the Committee recommends that the future of Vocational Education be in the form of a state school or schools. It is also rec-


VOCATIONAL TECHNICAL SCHOOL OF RHODE ISLAND
PROVIDENCE, R.I.
DENNIS J. ROBERTS - GOVERNOR
JOSEPH ALMOSNER & SON, ARCHITECTS & ENGINEERS

Architect's plan for the new state vocational-technical school in Rhode Island—first of its kind for the state. Established following a survey of the training needs of Rhode Island, the school is representative of the expansion of area vocational plants which is taking place throughout the United States. New area vocational schools built in the last ten years are valued at $25 million, excluding equipment and supplies. Value of all US area schools is $89,182,050.

ommended that a start be made in a small way and expanded only after this type of program has proved its value to the citizens of the state."

The recommendation is being put into effect, and construction will start shortly on the first school, to be located in the center of the state's population, Providence. The bond issue was for $600,000, with an additional $100,000 granted by the Governor for site development. The architects, Joseph M. Mosher & Son, Inc., of Providence, have done an excellent job in making the provisions noted in the accompanying floor plan.

It is hoped that three more schools will service the northern, southeastern, and southwestern parts of the state in the future.

As a pilot program in the day school, the training at the Rhode Island Vocational Technical School will be entirely in the field of trade and industrial subjects. This was the recommendation of the state-wide survey committee based on the fact that Rhode Island is primarily an industrial state. Training will be offered in auto repair, jewelry, carpentry, cabinet making, machine shop practice, cafeteria management, baking, electricity, practical nursing, and drafting. It is hoped expansion will include sheet metal, electronics, printing, and painting and decorating.

In the evening extension program it is planned to offer courses in agriculture, home economics and distributive education in addition to trade and industrial subjects. This plan will result in greater use of the school, gain the interest of more adults, and create a demand for these subjects to be included in the day program. The extension home economics program will include such subjects as household repairs, home furnishings, upholstering, sewing, decorating, rug hooking, caneing, household budgeting, and any other subjects which will help adults in family living. The program is well liked in new communities where the mortgages are heavy and house owners' budgets light. No day home economics program is planned at present in the area school.

Evening extension courses will be conducted in distributive education for adult persons engaged in retailing. If the space were available a day program could be started embracing the usual courses. There will be no day agricultural program at present. When additional funds are made available for building expansion, it is hoped to include a farm shop course.

How Colorado Trains Homemakers

(Continued from page 29)

tion. When it was found that Mesa College would and could meet these needs, added requests came to the attention of the director from groups and individuals.

Some of the courses asked for were dressmaking, tailoring, planning economical meals, furniture upholstering, slipcovers and draperies, parent-education—pre-school, cake decorating, interior decorating, furniture repair and re-design, personalized clothing, law for the homemaker and home planning and building.

Considerable time was taken to analyze the demands by those in charge of adult education. It was determined that the demands for courses stemmed from desire to make the family income reach farther; increased need for information on how to meet the needs of rearing a family and the desire to be a better homemaker in a changing world.

Full use has been made of the homemaking department at Mesa College for evening classes. Both the foods an dclothing laboratories are used for classes and the living room for discussion groups.

Finding instructors was an important problem with the increasing demand. Persons in the community with ability to teach were located. They qualified for a vocational credential since state and federal vocational funds were used. Many of these instructors are part-time employees and teach only one class.

Other nearby communities have asked for this service. As a result classes have been held in the Fruita and Palisade communities. Through mutual agreement the homemaking departments in these local high schools have been utilized to serve adult homemaking needs. Since Mesa College serves the area this arrangement presents no problem.

ADVISORY COMMITTEES

It has been the policy from the beginning of the organization of parent-education pre-school groups to use advisory committees. Two are now in operation in Grand Junction and one in Fruita.

Retiring officers meet with new officers before the beginning of each program. Suggestions from retiring officers for improving the program are used in planning the new program. Although advisory committees function in an advisory capacity only, they assist in finding facilities for meetings, study problems and contact and explain programs to new members.

COURSE ORGANIZATION

Most courses, with the exception of parent-education pre-school, are short unit courses. Classes meet 10 to 12 times, with sessions two hours in length, usually one night per week. Registration is in late September, early January and middle March. Fees, charged for all courses, take care of instructional supplies and help with other costs. In Colorado, state and federal funds reimburse approximately 40 per cent of instructional costs.

In order to meet existing needs, waiting lists have been maintained for different classes. This is an effective tool for the supervisor when competition for enrollment is keen.

It has been a policy to work through organizations whenever possible, in setting up classes. A good example was a course in tailoring in leather. This program would not have been offered had it not been for the efforts of a local organization of cattlemen's wives.

THE ADULT TEACHING STAFF

At the beginning of the school year and before classes are organized at least one meeting is scheduled for teachers who will instruct adults. At this time teachers are oriented with respect to the adult program. Its purpose and philosophy and some of the differences that exist between teaching adults and teaching day students are explained. Considerable supervision is offered by the director, especially for those teachers who do not have training or experience.

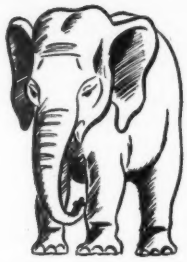
EVALUATION

In order to be reasonably sure that the students in the adult classes are satisfied, at the close of each course each one is asked to answer some questions. Typical are: what did you find of most value in this course, what were the weak spots, if any, and what suggestions have you for improving this course.

From a beginning of from five to seven classes per year, 25 to 30 classes are now organized. The program reaches homemakers not only from one city of 18,000 but from two adjacent smaller communities.

Increased consciousness that Mesa College offers this service indicates that new courses that will serve a greater number of homes will be scheduled in the future.

Education Platforms



Education. Every American child, irrespective of race or national origin, economic status or place of residence, has full right under the law and the Constitution, without discrimination, to every educational opportunity for developing his potentialities.

We are now faced with shortages of educational facilities that threaten national security, economic prosperity and human well-being. The resources of our States and localities are already strained to the limit. Federal aid and action should be provided, within the traditional framework of State and local control.

We pledge the Democratic Party to the following:

1. Legislation providing Federal financing to assist States and local communities to build schools, and to provide essential health and safety services for all school children;

2. Better educational, health and welfare opportunities for children of migratory workers;

3. Assistance to programs for training teachers of exceptional children;

4. Programs providing for the training of teachers to meet the critical shortage in technical and scientific fields; and

5. Expansion of the program of student, teacher and cultural exchange with other nations.

Vocational Education. We commend the 84th Congress for voting the maximum authorized funds for vocational education under the Smith-Hughes Act* for the first time in the history of the Act. We pledge continuing and increased support of vocational training for youth and adults, including aid to the States and localities for area technical-vocational schools.

The Republican Party believes that the physical, mental, and spiritual well-being of the people is as important as their economic health. It will continue to support this conviction with vigorous action.

Republican action created the Department of Health, Education and Welfare as the first new Federal department in 40 years, to raise the continuing consideration of these problems for the first time to the highest council of Government, the President's Cabinet.

Through the White House Conference on Education, our Republican Administration initiated the most comprehensive Community-State-Federal attempt ever made to solve the pressing problems of primary and secondary education.

Four thousand communities, studying their school populations and their physical and financial resources, encouraged our Republican Administration to urge a 5-year program of Federal assistance in building schools to relieve a critical classroom shortage.

The Republican Party will renew its efforts to enact a program based on sound principles of need and designed to encourage increased state and local efforts to build more classrooms.

Our Administration also proposed for the first time in history, a thorough nation-wide analysis of rapidly growing problems in education beyond the high schools.

The Republican Party is determined to press all such actions that will help insure that every child has the educational opportunity to advance to his own greatest capacity.

Here are the education platforms approved by the two national political parties at their 1956 conventions.

Vocational education is mentioned in only one, even though a determined effort was made by vocational leaders to have a statement of support for the program inserted in both platforms.

*EDITOR'S NOTE: The intended reference here is to the George-Barden Act. Both statements are reprinted exactly as they were published.

From the Office of Education

The month of August brought an influx of packages to the Division in the form of annual financial and statistical reports from the States. Most all reports were expected to be in by September 15. After they have been checked and reviewed by the Office staff, the reports will be compiled for the Digest of Annual Reports of State Boards.

* * *

Beulah I. Coon served as consultant for a workshop held on the Pennsylvania State University campus, August 13-24. This workshop was planned to help professional home economists work out means of meeting the growing demand for greater attention to clothing problems. Major emphasis was placed upon family situation, attitudes, and aptitudes affecting their clothing; economic and social factors affecting family clothing; special work on new textiles; and problems relating to consumers and the clothing and textiles industry.

* * *

Allen T. Hamilton is cooperating with A. B. Anderson, State Supervisor of Trade and Industrial Education of Delaware, in conducting an evaluation of the trade and industrial training program at Wilmington, Delaware.

* * *

Ata Lee, Program Specialist, attended the Tennessee State Conference for Homemaking Teachers at Murfreesboro on August 9-11. She spoke on the subject of present day changes affecting family living. The major portion of the conference was devoted to a review of the new curriculum guide which has been prepared by the home economics teachers in the State and to the consideration of ways to use it effectively.

* * *

The annual fall staff meeting of the Division of Vocational Education was held September 10-12. One of the special features of the meeting this year was presentations by Directors of the several Divisions in the Office of Education. This was for the purpose of developing a better understanding on the part of the staff of vocational education of the entire operations of the Office.

* * *

Practical nurses in southern Delaware interested in the development of practical nurse education throughout the country had as their speaker at the evening meeting on September 17, James H. Pearson, Assistant Commissioner for Vocational Education. He discussed the development of practical nurse education and plans for the improvement and further development of the program.

* * *

The home economics staff spent two days in an intensive study of ways to strengthen staff services to institutions requesting assistance with curriculum development in home economics and home economics education. Also, a staff committee has analyzed and summarized data concerning information and attitudes which 600 college freshmen women in Arizona institutions had about home economics. A report of the findings will be made available to States interested in a similar study of those initiating or carrying on a recruitment program in home economics.

* * *

Thirty-eight home economists from 20 other countries visited the Home Economics Education Branch during the month of August. Each secured detailed information concerning the home economics education program in the secondary schools of the United States as well as a better understanding of the functions and relationships of the Home Economics Branch and the Vocational Division to the States. These visitors are here to improve their own technical competence and to observe democratic principles at work in government and in the lives of the people with whom they will work and live. The Office of Education provides programs of orientation, training and work experience for these educators at the request of the U. S. Department of State.

* * *

Textile fiber teacher training clinics were held in Charlotte, North Carolina, September 24-26, and Indianapolis, Indiana, October 1-3. State personnel including teachers and prospective teachers of adult classes from States adjacent to each center attend to obtain expert information on natural and man-made fibers for use in distributive education. Specialists sent by the fiber producers serve as instructors. The success of two area fiber clinics held last year prompted the holding of the Charlotte and Indianapolis clinics. The Distributive Education Branch coordinated these clinics and has been requested to arrange additional clinics to serve other areas.

* * *

Highlights of the FFA activities in Springfield, Mass., where more than 500 members of the Future Farmers of America from North Atlantic Region States participated in the Eastern States Exposition, September 14-15, was a ceremony during the Exposition honoring the Star State Farmers of the region. In addition, there were regional judging contests, public speaking contest, and displays of educational exhibits. Mr. H. N. Hunsicker, program specialist, Agricutural Education, served as general superintendent of the FFA activities.

* * *

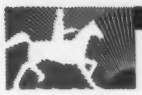
Beulah I. Coon attended the Pacific Regional Meeting of the College Clothing and Textiles Teachers in Fort Collins, Colorado, September 4 and 5. Miss Coon and other Home Economics Education Branch staff have served as consultants for both the national and regional planning groups in carrying out a comprehensive program to strengthen this aspect of the pre-service training of homemaking teachers.

You can teach more with this OLIVER Saw Bench because it does more!

Here's a sturdy Saw Bench that rips, cross-cuts, dadoes, miters with amazing accuracy. Saw arbor tilts up to 45°. Rips to 27" wide. Cross-cuts 13" wide, 2¼" thick. Anti-kick back catch for utmost safety. Most accurate set of gauges. Write for Bulletin 232D.

Oliver makes an extensive line of sturdy machines for school shops.

OLIVER MACHINERY COMPANY
Grand Rapids 2, Michigan



PROVEN TEXTS for VOCATIONAL TRAINING

BASIC ELECTRICITY — BASIC ELECTRONICS
by Van Valkenburgh, Nooger & Neville, Inc.

fabulous ILLUSTRATED Training Courses now used by the U. S. Navy!

Over 25,000 Navy trainees have already learned Basic Electricity and Basic Electronics this easy "Picture Book" way! Now, for the first time, the basics of Electricity and Electronics as "Learn-by-Pictures" training courses are available to schools. Over 1,700 simple, easy-to-understand drawings actually make up more than half the entire material! No other Basic Electricity or Basic Electronics courses in America use this revolutionary illustrative technique. Students learn faster and easier than has been dreamed possible!

There's a complete idea on every page! And there's at least one big illustration on that same page to explain it! What's more, in the Basic Electricity course, an imaginary instructor performs "demonstrations" that make it even easier to understand. Then, at the end of every section, there are review pages that highlight the important topics just covered.

Sponsored by the Navy to turn out trained technicians in record time, these modern courses present Basic Electricity and Basic Electronics in a simple way that everyone can grasp.

Basic Electricity and Basic Electronics already are adopted texts in many schools throughout the nation.

BASIC ELECTRICITY
#169 Soft Cover: 5 volumes, 624 pp., 6 x 9". Only $9.00 per set
#169-H Cloth Bound: all 5 volumes in a single binding. Only $10.50

BASIC ELECTRONICS
#170 Soft Cover: 5 volumes, 550 pp., 6 x 9". Only $9.00 per set
#170-H Cloth Bound: all 5 volumes in a single binding. Only $10.50

ARITHMETIC FOR ENGINEERS (5th Edition, Revised)
by Charles B. Clapham
An outstanding text on practical elementary mathematics for shop machinists, shop mechanic trainees, tool and die maker trainees, mechanical engineering students at the industrial level, mechanical drafting trainees . . . and all others who want to learn the elementary mathematics of Mechanics.
Written for use in schools and for home study. Ideal for industrial upgrading.
More than 390 numerical examples of solutions fully explained. More than 1,950 problem exercises. Answers to problem exercises.
Cloth Bound, 558 pp., 5½ x 8½", illus.
#183.....Only $6.50

ADVANCED TELEVISION SERVICING TECHNIQUES
by RETMA
A complete advanced TV servicing course, developed by the Radio-Electronics-Television Manufacturers Association, and made available to you at the incredibly low price of $4.55, complete! Shows you how to use every conceivable type of test equipment, how to service every part of a TV receiver. Soft Cover, 8½ x 11".
MAIN TEXT, 192 pp., illus.
#161.....Only $3.60
LABORATORY WORKBOOK, 32 pp.
#161-2.....Only $ .95
INSTRUCTOR'S GUIDE: Available to schools only, at no charge.

35mm. FILM STRIPS: Dramatic VISUAL AIDS, actually produced from the artwork appearing in this widely-acclaimed course.
Strip #1: 43 frames, showing "faulty" picture tube patterns.
#FS161.....Only $4.00
Strip #2: 115 frames, showing every single illustration appearing in the Main Text.
#FS161-2.....Only $11.00

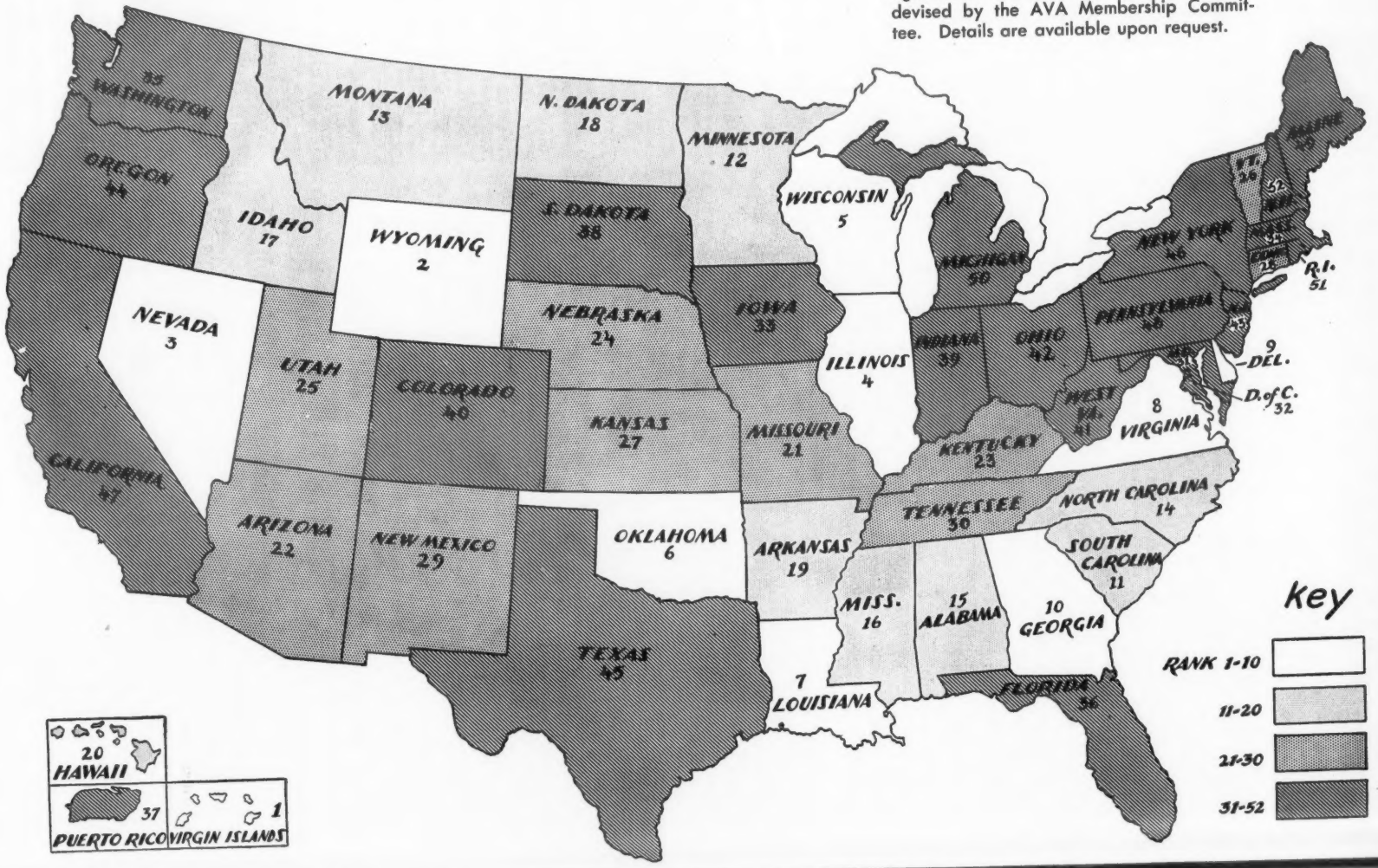
35mm. FILM STRIP: 50 single frames, teaching trouble diagnosis and recognition in HORIZONTAL AFC-OSCILLATOR CIRCUITS in television receivers. Complete with Instructor's Synopsis . . . . satisfaction guaranteed.
#FS1680.....School Price $5.95

SEND FOR 30-DAY APPROVAL COPIES
SCHOOL DISCOUNTS APPLY

JOHN F. RIDER PUBLISHER, INC.
480 Canal St., New York 13, N.Y.
In Canada: Charles W. Pointon, Ltd.
6 Alcina Ave., Toronto, Ontario

Rank of States in AVA Membership, September 1, 1956

States and territories are ranked on the attainment of their potential on a percentage basis. The formula for potentials was devised by the AVA Membership Committee. Details are available upon request.



Congratulations Michigan

Editor's Note

Through the years we have advocated the importance of keeping members of National Congress informed regarding vocational education. Recently we received a communication from H. J. VanWestrienen, Director of Vocational Education in Michigan, telling us of an activity he used this year to acquaint every member of his delegation in National Congress with the amount of funds and the program of vocational education being carried on in their respective districts.

He has arranged the information so that it consumes only one typewritten page, showing the amount of money, federal and state, made available to each school in the several counties of the Congressional District of each U. S. Representative. In addition he shows the departments that are carried on for each of the four federally aided programs.

In a matter of minutes a Congressman can look at the material furnished him and find out in a general way what is taking place in the way of financial support for vocational education in his Congressional District.

We congratulate Mr. VanWestrienen on developing such a unique and brief manner of informing his Congressmen of what goes on in Michigan in each of the several Districts.

AVA Convention Plans Progress

Final plans for the 50th annual vocational meeting, St. Louis, Mo., December 5-9, are shaping up. Appearing as a main convention speaker wil lbe Senator Stuart Symington of Missouri. Senator Symington, who was elected to Congressional office in 1952, is a member of the Armed Service, Government Operations, and Public Works Committees. His background includes service as Secretary of the Air Force and Administrator of the Reconstruction Finance Corporation.

Other main convention speakers will be announced in the November issue of the JOURNAL.

Outlines of programs that were not covered in the September JOURNAL are reviewed here.

INDUSTRIAL ARTS

Industrial arts divisional meetings, scheduled for the 1956 AVA Convention, are completely planned. With Dr. H. H. London, Professor of Industrial Education, University of Missouri, as Program Chairman, the full program will open on Sunday, December 2, 2:00 PM, with a cabinet meeting of the Industrial Arts Policy and Planning Committee. The National Conference of State and Local Supervisors of Industrial Arts will go into session Monday at 9:00 AM, with Ernest R. Stotler, Director of Practical Arts, Akron, Ohio, as Chairman. After an industrial arts workshop, featuring problems submitted by 65 state and local supervisors, five groups will go into action. They will comprise duties of the supervisors; curriculum and course planning; industrial arts teacher preparation; in-service teacher training; and miscellaneous problems.

The problems of supervision and teacher education will be studied Monday afternoon when Frank C. Moore, Cleveland, Ohio, Director of Industrial Arts, will be the chairman.

A series of group discussions on the evaluation of industrial arts are scheduled for Tuesday, December 4, at 9:00 AM. G. Wesley Ketcham, Consultant in Industrial Arts for Connecticut, will chair this meeting.

Tuesday afternoon is set aside for visits to the commercial and educational exhibits.

The annual business meeting of the industrial arts division of the AVA is scheduled for Wednesday, December 5, at 8:00 AM. AVA Vice President for Industrial Arts Dr. Shriver L. Coover, who is Director of the Industrial Area Department, State Teachers College, California, Pa., will be in charge. Business will include election of officers, reports, and a discussion of recommended projects.

Industrial arts design will be offered as the Wednesday afternoon topic. John L. Feirer, Head, Industrial Arts Department, Western Michigan College, Kalamazoo, has planned this meeting.

Thursday morning at 8:15, Program Chairman Dr. H. H. London will head a panel discussion on what should be taught in industrial arts.

The final offering, devoted to a look at the new world of manufacturing, will have as chairman, Dewey Barich, Department of Educational Affairs, Ford Motor Company, Dearborn.

INTERNATIONAL EDUCATION

Dr. Franklin J. Keller, Principal Metropolitan Vocational High School, New York, N. Y., and Program Chairman for International Education for the 1956 AVA Convention has completed final plans for St. Louis sessions.

The first meeting will open at 8:15 AM, Thursday, December 6, with Highlights *in International Cooperation* as a theme. Edward Berman, Chief, Latin American Branch, ICA, will discuss Latin American Affairs. William Sturton, Vice President, Michigan State University, will review activities in Thailand. K. N. Rao, Coordinator, International Services Division, Dunwoody Institute, will have as his topic Japan, Korea, Indonesia, and Burma.

Activities in foreign countries will be discussed by a panel Thursday afternoon at 2:00 PM. With Dr. Keller as Chairman, members will be Floyd L. Barloga, U. S. Office of Education; John A. Butler, Assistant Director, Dunwoody Institute; Oliver Caldwell, U. S. Office of Education; Arthur Gagliatti, United Nations; Kenneth Holland, Institute of International Education; and Douglas M. McDonnell, Principal, Keidelberg Technical School, Melbourne, Australia.

AREA VOCATIONAL PROGRAMS IN PUERTO RICO

Puerto Rico's trade and industrial education program operates five vocational high schools and six senior high schools with vocational trade departments that serve as area trade schools. These schools, located in the largest cities, serve small nearby towns and communities where no vocational trade schools are in operation. The largest enrolls students from about twelve nearby towns and cities and the smallest enrolls students from two nearby towns.

Transportation facilities are provided for students from small towns. Lunchroom facilities are also provided. By Commonwealth Law no matriculation fees are charged to students attending and all instructional material is provided free of charge. Proper clothes to be used during the shop work periods are also provided.

The area trade schools carry on a placement program through the guidance service office and in cooperation with the Commonwealth Employment Service of the Department of Labor. As soon as the student completes his training in school, he qualifies for employment and is referred to the local employment office.

COURSES OFFERED

The largest area vocational program is offered at the Miguel Such Metropolitan Vocational School in Río Piedras. It comprises the following courses: aircraft and engine mechanics, auto body repair and painting, auto mechanics, bakery and pastry, carpentry and woodworking, commercial art, diesel mechanics, dressmaking, electricity, furniture making, furniture upholstery, machine shop, masonry and bricklaying, ornamental iron work, plumbing and pipe fitting, power sewing machine operation, practical nursing, printing and Linotype, radio-television, refrigeration mechanics and air conditioning, watch and clock repairing, television and tool an ddie making.

Other large area programs are offered in four additional vocational high schools: Ponce Vocational High School in the southern part of the Island, Mayaguez Vocational High School in the western part, Arecibo Vocational High School in the north and Caguas Vocational High School in the central part. Seven vocational schools or departments operate also as area vocational programs attached to senior high schools.

TRAINING PROGRAMS

The vocational high school program (type B) is designed to meet the need for skilled workers with good general education who are qualified to be leaders in their fields of specialization. It provides an opportunity for junior high school graduates to continue their high school education at the same time receive vocational training in the trade of their choice. At the end of three years, the student receives a high school diploma and a vocational certificate stating that he has completed satisfactorily his vocational course.

The short-duration programs (type C) provides for specialized training. Students taking this training have an excellent opportunity to prepare themselves in one or more units related to specific trades. These courses are offered to meet the growing demand for qualified an dspecialized workers for the different industries of the Commonwealth of Puerto Rico.

"War Orphans" May Apply for Educational Benefits Now Under New Federal Law

Children of deceased veterans planning to attend school or college this fall under the new "War Orphans" Education Law, P.L. 634, are urged by the Veterans Administration to file their applications as soon as possible in order to avoid unnecessary delays in receiving their first monthly allowance check. Application forms are now available at all VA offices.

Those eligible for schooling are young men and women whose veteran-parent died or injuries or diseases resulting from military service during World War I, World War II, or the Korean Conflict. Students generally must be between 18 and 23 years old; however, children will be permitted to begin school before their 18th birthday and to finish after their 23rd in some instances.

PEOPLE

Nancy Kane Leaves AVA

The AVA Washington office regrets to announce that Nancy Hall Kane, AVA Publications Secretary since 1951 left her position September 21 to enter service with the American Historical Association as Assistant Editor of the *American Historical Review*, official publication of the AHA which is the professional organization for scholars of history in the U. S.

Nancy joined the AVA Washington staff in 1949 as Publications Assistant to work jointly with the AVA Committee on Research and Publications and the AVA Executive Secretary, chiefly in writing, preparing, editing and producing AVA studies and bulletins. In 1952 she was promoted to Publications Secretary.

A Phi Beta Kappa at Cornell University, Nancy was born in Ithaca, N. Y., earned her BS at Cornell, 1946; and her M.Ed., Cornell, 1949. She was Assistant to the Manager, Cornell University Press before joining the AVA staff.

Creative and capable, Nancy has contributed with consistent success to numerous AVA activities. She has coordinated, edited and produced 13 publications: *You and Research; AVA Your Professional Organization; Your Public Relations, A Guide for Vocational Educators; Administration of Vocational Education at State and Local Levels; Salary Incentives for Teachers of Distributive and Industrial Education; Family Focus in Home Economics Teaching; You and Research; Vocational Education and National Security; Home Economics Education for Out-of-School Youths and Adults; Evaluative Criteria for Distributive Vocational Education; Definitions of Terms Used in Vocational and Practical Arts Education; A Guide to Improving Instruction in Industrial Arts; Education of Veterans in Farming; and A New Look at Life Adjustment Education.*

AVA membership leaflets for each field have been prepared and produced by Nancy who has efficiently handled for the AVA office many other important assignments. She has represented the Washington office at many meetings, she has attended and made major contributions to AVA national conventions, she has written speeches, publicity and promotional pieces, she has assisted in the preparation of *The Office Desk*, she has annually produced the AVA program booklet, and she has served for five years as Editorial Assistant for the American Vocational Journal—making a total of two persons who have regularly produced your monthly professional magazine.

Nancy's additional responsibilities for AVA are too numerous to list fully here. But her final assignment claims importance that cannot be overlooked. In 1956 she conducted and completed a comprehensive analysis of a national survey of all existing area vocational schools and programs in the U. S. The lead feature in this issue, *The Area Vocational School Story*—a brilliant summation of top-interest survey findings—is from her pen.

As she leaves the AVA office, her Washington colleagues are impressed with the knowledge that there is scarcely a phase of AVA membership service that has not been touched by her ability, fired by her fine spirit, and kindled by the enthusiasm with which she tackled every professional task that came here way.

Charles R. Hale

Charles R. Hale, Director of Trade and Industrial Education, Mary Karl Vocational School of Volusia County, Daytona Beach, Florida, offers a good example of how to thank congressmen for support of the vocational program.

When Mr. Hale learned that the full vocational appropriation had been approved for the first time (June, 1956) he wrote to his Senators and to his Representative to express his appreciation and to enclose an annual placement report. The report was included, he explained, to "Give some idea of the benefits Florida people are deriving from vocational education.

"This," he went on, "is a small school and it is believed that our placement report represents about 10 per cent of the total number of graduates in Florida of vocational programs placed in employment during the fiscal year 1955-56."

C. M. Moeller

C. M. Moeller is the recently appointed Associate Professor of Applied Science at Southern Illinois University. Mark Klopp, former instructor of engineering drawing at Pennsylvania State University, has also joined the Applied Science staff.

Dr. James Jenkins, former Associate Professor of Industrial Arts, East Carolina College, Greenville, N. C., is a new member of the Industrial Education Staff.

A Veteran Conventioneer, Aged 12, Looks Back

Editor's Note: **Gervaise Marie Smelser, at our request, presents a few AVA convention memoirs that go back as far as the AVA Los Angeles meeting, 1947, in spite of the fact that the author is now precisely 12 years, two months old.**

Rex Smelser, father of Gervaise, is a well known conventioneer too. He heads Sowla Tech in Louisiana and has served AVA through the years in many capacities. He is President of the National Council of Local Administrators.

We'll let Gervaise tell the rest of the story!

At the age of three the AVA was introduced to me in Los Angeles, but I found an experience at Hollywood and Vine to be more exciting. It was there that I met Jeffrey who was also three but quite a "wolf". While Mommie and Dad- bought tickets for a special radio show, I dashed out of the theatre. Daddie found me talking with Jeffrey who was quite exasperated because he could not understand my name and address. However, I had alreaedy found out his name and that his father owned a shoe store. Finally his persistent nurse led him away as he was saying, "gee, you're beautiful," and of course being a girl I will always remember those final words.

A year later the AVA convened in Milwaukee where I met "Grandpa" Morris Seigel of New York. I loved to hear him reminisce about his grandchildren—the last count I had was 13. It was in Milwaukee where Mommie got lost. We were shopping on the ninth floor of a large store when I disappeared. After many anxious moments for Mommie and Nell, I stepped from among a rack of skirts with the greeting, "Hi, Mommie."

The convention of '49 was held in Atlantic City. Even though I was only five, it was here that I felt I had become a part of the American Vocational Association. Harry Sears of American Technical Society made me a member of The Ship and at The Ship's program I was presented a gift. Since that time I have always worked in some of the booths during each AVA convention. Oh, yes, I still have happy memories of Dr. Andrew Holt's jokes which he told at the banquet.

In '50 I was grateful my winter clothes were packed for Miami. However, my 22 mile ride in a glass bottom boat and the quantity of cocoanuts in the parks soon made permanent pleasant memories of Miami. Mommie, Nell, and I took a side trip to Key West which was interesting.

Saw my first real snow storm (of course, the natives did not call it that) just before reaching Minneapolis in '51.

It was in Boston in '52 when I was eight that I learned a lot of history which became very real to me two years later while studying fifth grade history. When I think of Boston, my memories turn to my first subway ride at the end of which we visited the Science Museum. Another memory is that good Indian pudding.

AVA in Chicago was wonderful because it was here that Connie Wall, whose father is in agricultural work in Lincoln, Nebr., and I became friends. At one of our meetings I remember a very good but not too well known entertainer. He is still good but now well known—George Gobel.

My trip to San Francisco was the "most" because on the way out there we saw so many things—Carlsbad Caverns, Painted Desert, Petrified Forest, Boulder Dam, Grand Canyon, and Sequoia National Park. Mommie and I always plan to see things on the way out because on the way back Daddie never stops to see anything.

At the age of eleven, again the AVA met in Atlantic City which was more enjoyable than before because "I had grown up." Particularly did I enjoy riding horseback on the beach with Connie Wall.

I cannot write my memories of the AVA without including my good friend Nell (Mrs. Glen Madere of Opelousas, La.), who from 1947 through '55 (except for one convention) was there to help Mommie with me and to encourage her to keep bringing me. I am sure at the age of three Mommie needed all the courage Nell could give her. Thanks, Nell.

Robert M. Worthington

Robert M. Worthington assumed his new duties as Minnesota's Assistant State Supervisor of Trade and Industrial Education July 15. He succeeds Charles A. Shubet who is now Minnesota State Supervisor of Private Trade Schools.

Mr. Worthington has been teaching undergraduate industrial arts and doing advanced graduate work at the University of Minnesota since 1953. He earned his BS at Eastern Kentucky State College in 1948. In 1949 he earned his MA in Industrial Education at the University of Minnesota. He is President of the Minnesota Industrial Arts Association as well as President-Elected and Convention Chairman for the Minnesota Vocational Association.

———AVA———

What AVA Has Done For You, **a traditional October Journal feature, will be in the November issue this year.**

Edward Berman

Edward Berman, who entered foreign service in September, 1952, is now in Washington, D. C., as Chief of Education, Latin American Branch, International Cooperation Administration.

Mr. Berman, who formerly served in Bayonne, N. J., as Assistant Superintendent of Schools and also as a vocational education instructor, Columbia University, spent two months in teacher training in Panama and Quito, Ecuador, in 1952. Later he conducted surveys in the city of Quayaquil and the province of Guayas in order to determine the type of technical institute needed in this area. The new plant is now under construction.

From June, 1953-April, 1956, Mr. Berman was in charge of teacher training for the vocational education in Brazil, with headquarters in Rio de Janeiro.

Mr. Berman is a Life Member of the AVA.

LeVerne Patterson

LeVerne V. Patterson has joined the staff of the Industrial Education Department, Agricultural and Mechanical College of Texas, College Station, as an Assistant Professor beginning with the present school year. Mr. Patterson has a BS from the University of Illinois, and an MS from the University of SIllinois. He has completed all course work leading to the doctorate degree at Bradley, University, Peoria, Ill.

Mr. Patterson's specific assignment with the Industrial Education Department will be to teach courses in industrial safety and supervision to Industrial Technology students.

His experience includes several years teaching industrial subjects in the high schools of Illinois and West Virginia. While pursuing the doctorate program at Bradley University, he taught parttime on the college staff. His most recent assignment was Coordinator of Diversified Cooperative Training for the public schools of Vero Beach, Florida. He has also had several years experience in industry with the Waco Aircraft Company in the area of safety and supervision.

News from Stout

Appointment of 11 teachers to the faculty of Stout State College has been announced by Dr. Verne C. Fryklund, President. Of that total, four are teachers filling positions necessitated by Stout's record enrollment. The remainder replace instructors of the previous year. Two more teachers are yet to be appointed.

Milo J. Peterson

Dr. Milo J. Peterson, Professor of Agricultural Education, returned to the University of Minnesota campus in July after six months in Japan. Dr. Peterson traveled extensively throughout Japan as a Fulbright Research Scholar. The purpose of his work was to assist in strengthening the program of agricultural education with emphasis on the organization and administration of training programs for teachers of agriculture and other professional agricultural workers.

PAUL CALROW

Paul Calrow, who served as Minnesota's State Supervisor of Vocational Agriculture during the formative years of the program died last summer. Mr. Calrow held the state supervisory post from 1921 until 1927 when he resigned to enter another field.

Association News

Pennsylvania IAA

The fourth annual convention of the Pennsylvania Industrial Arts Association is scheduled for Hershey, Pa., October 26-27. Dr. A. G. Breidenstine, Dean of Instruction, Millersville State Teachers College, Millersville, Pa., wil speak at the general session Saturday morning on Industrial Arts in Modern Education.

Massachusetts Celebrates 50 Years of Vo-Ed

Eight states are joining to celebrate the 50th anniversary of vocational education in Massachusetts on October 26-27. Events planned, for all the New England delegates and guests, include a social and dance, tours around the guest city of Northampton, an informal luncheon, banquet, divisional dinners, commercial exhibits, and school exhibits.

In a proclamation that named the week of October 21-27 *Vocational Education Week,* the Hon. Christian A. Herter, Governor of Massachusetts, said:

"Massachusetts, alert to the educational needs of its people, and as a result of the study of the now nationally famous Douglass Commission, in 1906 enacted the first all-inclusive Vocational Educational law in the United States. This law has served as a pattern for most of the subsequent legislation for the development and operation of Vocational Education in these United States. It has provided the opportunities for the residents of the Commonwealth to obtain that type of education and training which has prepared them for their lives' work in the fields of Trade and Industry, Agriculture, Homemaking and Distributive Occupations. It has enabled the Vocational Schools to establish a brilliant record of achievement in preparing our youth to become skilled and intelligent citizens, and in helping our adult workers obtain additional skills which have proven to be of inestimable value to the industrial life of the Commonwealth.

"The Vocational Educational system of Massachusetts has demonstrated conclusively over the past half century that it has not only effectively fulfilled the intent and purpose of the 1906 legislation, but it has also provided excellent additional educational and training programs when these were most needed by our country. The inspiring efforts of Vocational Education during and after our greatest emergencies, World Wars I and II, in training two hundred thousand men and women in specialized occupations for employment in our defense industries, and in training and rehabilitating over one hundred and five thousand veterans of those wars in our Vocational Schools and in "On-the-Job Training Programs", present a glorious report of accomplishment to be preserved not only as an historical record, but also as a plan of action to be followed if our nation should call upon our schools in any future emergency.

"Vocational education now enters its next half century of progress, fully aware of its responsibilities as an integral part of our educational system, and cognizant that it must continue to develop in the youth and adults of this Commonwealth the knowledge, the skill, and the wisdom, which will enable them to think constructively, work competently, and live effectively as citizens of our great nation in this age of atomic nuclear power and electronic automation. Our Vocational Educational program will always be guided by the fact that there is in work a burgeoning educative force which, while resulting in the production of goods and services, contributes substantially to the beauty, happiness, and culture of our American way of life.

"Therefore, I, Christian A. Herter, in observance of the Fiftieth Anniversary of the establishment by law of Vocational Education in the Commonwealth of Massachusetts, and in recognition of the notable contribution that Vocational Education has made to our educational, economic, and social life do hereby proclaim the week of October 21 through 27, 1956 to be Vocational Education Week, and I urge that this week be observed with suitable ceremonies in all of our schools and places of public assembly."

Harold A. Mostrom, MVA Past President and Chairman of the 50th Anniversary Convention Committee will open the first meeting Friday, October 26, 10:00 a.m., at Smith's Vocational High School Auditorium. After an invocation Chester D. Blackman, MVA President will introduce Carl E. Herrick, Massachusetts State Senior Supervisor of Administration, who will pay tribute to the memory of pioneers of the Massachusetts vocational program.

Mayor James Cahillane, Superintendent of Schools William R. Barry and John W. McDevitte, Chairman of the Massachusetts State Board of Education will each extend greetings.

Dr. Finis E. Engelman, Connecticut's former Commissioner of Education who is now Executive Secretary of the American Superintendent of Schools Association will offer the main address. He will be introduced by Walter J. Markham, Massachusetts State Director of Vocational Education and John J. Desmond, Jr., Massachusetts Commissioner of Education.

The second general session will be opened by President Blackman, who has served as Co-Chairman for the anniversary meeting. Dr. M. Norcross Stratton, Retired Massachusetts State Director of Vocational Education will offer greetings. AVA President J. F. Ingram, who will be the featured speaker at the banquet.

Dr. Hobart H. Sommers, Chicago, Ill., Assistant Superintendent in Charge of Vocational Education. will be the main speaker at the banquet scheduled for Saturday, October 27, 1:30 P.M.

M. D. Mobley Addresses AFA

AVA's Executive Secretary, Dr. M. D. Mobley, spoke on the topic of *Youth and Forests* at the 81st annual meeting of the American Forestry Association, Sept. 30-Oct. 4, La Plata, Md. The AFA program, themed *America's Small Woodlands,* honored the golden anniversary of the State of Maryland's Department of Forests and Parks.

In covering his subject, Dr. Mobley said: "The vocational teachers have found that forestry is a subject that cannot be taught to youth in a hit or miss casual manner. . . . To really learn something, boys must study forestry on an organized, systematic basis that involves many hours of thought and practice. . . ."

NEA Centennial

The National Education Association, which is observing its Centennial throughout 1957, has published a 12-page leaflet, *To Consider Education in a Changing World,* which is to help community groups in planning meetings on problems related to the schools.

LISTER HILL, GUEST EDITORIAL

(Continued from page 6)

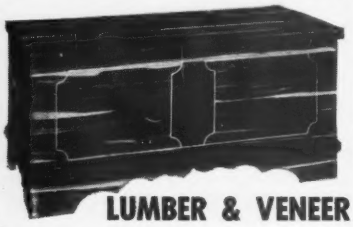
dents were in scientific and technical fields, compared with some 25 percent in the United States. And the conclusion Dulles draws is that "in technical, engineering, and industrial fields the Soviets can achieve any particular objective we can achieve." To counter Soviet advances in education, the United States must immediately focus more attention and emphasis on technical training.

Another serious problem of concern to the Nation relates to rural people, particularly the low-income farm family. Increased mechanization in agriculture and improved farming methods have increased productivity per man to such a level that it is no longer feasible for all farm children to remain on the farm. Many are forced to leave the land they love to seek jobs in the cities and towns. In general, they enter the labor market with little or no useful training because the small high schools they attended cannot afford a broad, diversified vocational program.

Congress in this session, as in the last session, has recognized the urgent need for providing vocational and technical training for greater numbers of our people by voting substantial increases in the appropriations for vocational education under our existing programs. This year Congress, for the first time, voted the full funds authorized for vocational education under existing legislation. I am confident that the use of the funds will prove the wisdom of this action.

The Area Vocational Technical School Bill, which I introduced on July 27 this year for myself and twenty-five fellow Senators, is a logical companion to the acts passed in earlier years. Enactment of the bill will fill a gap in our educational process and contribute importantly to strengthening the self-reliance of our people, to the economic welfare and to building the strength and providing for the security of our country.

KNOCKED DOWN CEDAR CHEST



LUMBER & VENEER

▶ WRITE FOR FREE PRICE LIST

GILES & KENDALL CO., Huntsville, Ala.

APRONS and COATS

Economical. Protect students clothes. Good quality material. 2 pockets. 4 colors and sizes. "SHOP ORGANIZATION" book with each order. Prepaid shipment.

Instructors coats. Exclusive design. 4 pockets. SENT ON APPROVAL. Green, Tan, Blue, Gray, White.

WRITE FOR CATALOG NO. 28

"The School Apron Folks"

CAN-PRO Corporation

23 E. McWILLIAMS STREET

FOND DU LAC, WIS.

Your students will enjoy building any of these interesting projects. The clear, easy-to-follow plans—plus big easy-to-work panels—make for professional-like results when you use

FIR PLYWOOD

Look for DFPA trademarks—your assurance of DFPA quality-tested fir plywood. PLYPANEL is versatile one-side grade of Interior-type fir plywood. For all outdoor uses, insist on EXTERIOR-TYPE; the EXT-DFPA on the panel edge is your positive identification.

INSIST ON DFPA-INSPECTED FIR PLYWOOD

38 PLANS

for classroom projects

FREE

to industrial arts instructors

CHECK PLANS YOU WANT—
MAIL COUPON—THAT'S ALL!

☐ UTILITY TABLE	☐ CHILD'S TABLE AND STOOLS	☐ PATIO FURNITURE
☐ STACKING CABINETS	☐ BUNK BED	☐ ODDS 'N ENDS CABINET
☐ BUFFET STORAGE CABINET	☐ BOAT BED	☐ 5' SAILER
☐ UTILITY SHELVES	☐ TRAIN TABLE CABINET	☐ 15' SAILBOAT
☐ TOOL-CABINET WORKBENCH	☐ COVERED SAND BOX	☐ 20' SAILBOAT
☐ DOUBLE DUTY DESK	☐ TOY STORAGE BLOCKS	☐ 11'3" OUTBOARD
☐ COFFEE TABLE	☐ PORTABLE GARDEN CADDY	☐ 9' FLAT BOTTOM DINGHY
☐ BEDSIDE TABLE	☐ SECTIONAL PATIO TABLES	☐ 7'9" PRAM DINGHY
☐ STUDENT'S DESK	☐ OUTDOOR SERVING WAGON	☐ 13'4" OUTBOARD
☐ CHEST OF DRAWERS		☐ 13'6" INBOARD RUNABOUT
☐ TWO-DOOR CABINET	☐ SUN SLED	☐ HOG HOUSE
☐ TV STOOLS	☐ GARAGE STORAGE BOX	☐ POULTRY HOUSE
☐ CHILD'S TUMBLER	☐ GARDEN CABINET	☐ ROLL-AWAY POULTRY NEST

DOUGLAS FIR PLYWOOD ASSOCIATION, DEPT. AV, TACOMA 2, WASH.

Without obligation or charge, please send me a copy of the plans I have checked above.

NAME_____

SCHOOL_____

ADDRESS_____

CITY_____ ZONE_____ STATE_____ (Good in U.S.A. Only)

BOOKS AND BULLETINS

FFA at 25, by John Farrar. Reviewed and approved by members of the Agricultural Education Branch, U. S. Office of Education. Edited, published and distributed by the Public Relations Department, General Mills, Minneapolis, Minn., 1956. 64 pages.

Thirty thousand copies of this edition have been distributed free of charge to FFA chapters across the nation. In order that the history might become an official publication of the FFA, General Mills has donated the printing plates to the FFA Supply Service and has relinquished all copyright rights.

———AVA———

Dictionary of Photography, edited by A. L. M. Soverby. Philosophical Library, 15 E. 40th St., New York 16, N. Y., 1956. 719 pages, $10.00.

This standard reference work is for practicing photographers, amateur and professional. New articles on color photography and cinematography are included.

———AVA———

TV Manufacturers' Receiver Trouble Cures, Vol. 8. John F. Rider Publisher, Inc., 480 Canal St., New York 13, N. Y., 1956. 117 pages, $1.80.

Official design laboratory cures for "bugs" which may be encountered in TV receivers are covered here.

Elements of Radio, by Charles I. Hellman. D. Van Nostrand Co., Princeton, N. J., 1956. 354 pages, $3.96.

An introduction to radio, this work is planned to thoroughly ground the student in an understanding of basic circuits and how they are employed in transmitters and receivers.

———AVA———

Basic Electrical Principles, by Maurice G. Suffern. McGraw-Hill Book Co., Inc., 330 W. 42nd St., New York 36, N. Y., 1956. 454 pages, $4.00.

This text is designed to aid in the training of electrical trades students on the vocational education level.

———AVA———

Drawing and Planning for Industrial Arts, by John L. Feirer. Chas. A. Bennett Co., 237 N. Monroe St., Peoria 3, Ill., 1956. 376 pages.

An instruction plan and answer book accompany this text for students in shop and drawing classes that are a part of general education.

———AVA———

Teaching by Closed-Circuit Television. American Council on Education, 1785 Massachusetts Ave., N.W., Washington, D. C., 1956. 66 pages, $1.00.

This is the report of a conference sponsored jointly by the Committee on Television of the American Council on Education and the State University of Iowa.

———AVA———

Research in Safety Education. Center for Safety Education, New York University and School and College Conference, National Safety Council, 1956. 36 pages.

This is a listing of needed research, suggested problem outlines and a compilation of selected studies now available in safety.

Keep Your Journals In a Permanent Binder!

More than a magazine, the American Vocational Journal is an encyclopedia of information on vocational and industrial arts education, the American Vocational Association, federal legislation for the vocational program, and related subjects. Every issue is worth keeping for re-reading, for quick reference, and as a valuable professional resource.

AVA members everywhere will want to take advantage of a first offer on binders that are available from Journal headquarters.

Lightweight but durable, finely grained in dark blue and gold embossed, these binders will conveniently store a complete Journal volume.

Copies may be inserted, one at a time, simply by the snap of a light, unbreakable wire. Opening flat, the binder will enhance reading pleasure and add to the appearance of any library.

Protect your permanent copies of the Journal. Start now to acquire your own exclusive reference library on vocational and industrial arts education. Use the clip coupon today!

AVA Headquarters
1010 Vermont Ave., N.W.
Washington 5, D. C.

Please ship me.....binders @ $3.00 each.

Name

Address

PLASTICS
INDUSTRIAL ARTS SUPPLIES
Fast Service—Wholesale Prices
Our 20-page illustrated catalog upon request
PLASTIC PRODUCTS CO., OF UTAH
P.O. Box 1415
937 East 9th South, Salt Lake City 10, Utah

NEW FOLDER—FREE FOR YOUR GUIDANCE FILE

"VOCATIONAL OPPORTUNITIES IN THE HOTEL AND INSTITUTIONAL FIELD"
The hotel and institutional field offers unusual opportunities today to men and women, both young and mature. The Lewis School—original and only school offering both resident and home study hotel training courses has prepared a FREE folder for Guidance Officers giving full details about this fascinating field. Write on your letterhead to:
LEWIS HOTEL TRAINING SCHOOL
Vocational Guidance Div., Room BR-4904, Wash. 7, D. C.

CARVING TOOLS
HOBBYCRAFT SETS
IMPORTED FROM GERMANY
Complete line of Chisels, Gouges & Parting Tools in Straight, Long Bend, Spoon, Back Bend & Fish Tail. Over 30,000 Tools in Stock. Many Special & "Hard to Get" Items. Low Prices. Liberal Discounts to Schools & Dealers.
BIG 8 PAGE FOLDER FREE. Write To-Day.
FRANK MITTERMEIER (Est. 20 years) 3577 E. Tremont Ave. New York 65, N.Y.

You Asked For It!
RADIO-TELEVISION AND BASIC ELECTRONICS
By R. L. Oldfield
$4.95

Designed as a basic text for vocational school programs, this new book is geared to the requirements of the modern electronics industry.

The logical presentation of this modern book makes it an ideal work for the beginner and the advanced student of radio, television, and electronics. Its carefully arranged format, easy-to-read style, and clear illustrations stimulate the student's desire to learn.

Order Your Copy Today!

Please send me an on-approval copy of Radio-Television and Basic Electronics.

Name .....
Position .....
School .....
Address .....
City .....Zone.....State.....

AMERICAN TECHNICAL SOCIETY
Dept. W263
848 East 58th St. Chicago 37

ELEMENTS OF ELECTRICAL DRAWING
by Fisher and Crowley
Ten drawing projects of common electrical machines and controls, with answers
Price $2.75 less 20%—6 or more copies 30%
Electro Technical Publishing Co.
Box 227 Manchester, Conn.

GREER TECHNICAL INSTITUTE
2230 SO. MICHIGAN AVE.
OFFERS ENGINEERING COURSES
IN
• AUTO DIESEL • REFRIGERATION
• AIR-CONDITIONING
Winter Quarter Starts January 2, 1957
Spring Quarter Starts April 1, 1957
Write, Call or Phone
Mr. J. Morgan Johnson,
Educational Director
Victory 2-2300

If You Need a Loan—It is Our Pleasure to Serve You

Borrow by Mail

ANY AMOUNT—$100 TO $600

✓ FAST SERVICE!

✓ COMPLETELY PRIVATE!

✓ NO CO-SIGNERS NEEDED!

IMPORTANT FEATURES OF OUR BORROW-BY-MAIL LOAN SERVICE

1. **SIGNATURE ONLY**—Teacher loans are made on your signature only—no co-signers, no endorsers. No mortgages on car or furniture or other property.
2. **CONVENIENT TERMS**—Pay loan out of future earnings in convenient monthly installments. See chart for amounts and payments. Loan can be repaid at any time and you pay only for the time you use the money—no longer!
3. **NO SUMMER PAYMENTS**—No principal payments required during summer vacation. If your salary stops during the summer vacation, payments on principal stop also. An extra service of special value to teachers.
4. **PRIVACY GUARANTEED**—The loan is made by mail from the privacy of your own home. You see no agents or credit managers—only you and we know about it.

SELECT AMOUNT YOU WANT	MONTHLY PAYMENTS BELOW INCLUDE BOTH INTEREST AND PRINCIPAL: 20 MONTHS
$100.00	$ 6.75
200.00	13.43
300.00	19.95
500.00	31.83
600.00	37.48

A STATE FINANCE "TEACHER LOAN" CAN BE THE ANSWER TO YOUR MONEY PROBLEMS

Applications for loans from teachers always receive the "green light" . . . immediate service is almost always assured. If you need any amount from $100 to $600, the cash is here waiting for you. You may want cash to further your education or to consolidate old bills and protect your credit standing. Remember, State Finance loans you money BY MAIL from the privacy of your own home and without anyone in the community or school knowing anything about the transaction. All mail is sent to you in plain, sealed envelopes.

NO WAITING—MAIL APPLICATION NOW

Today, this minute, fill out and mail the short loan Application and Note below. That's all you have to do. We'll speed the cash on its way to you as soon as approved. We guarantee satisfaction. Our sixty year old organization is licensed and supervised by the Nebraska Banking Department. You can deal with us in complete confidence. Rush application to us.

Old Reliable Company • Over 60 Years of Service

STATE FINANCE COMPANY

410 KILPATRICK BLDG., DEPT. D-208

OMAHA 2, NEBRASKA

FOR $100 to $600 — CUT OUT AND MAIL *TODAY!*

To State Finance Company, Dept. D-208
410 Kilpatrick Bldg., Omaha 2, Nebraska

Please accept my application for a loan. It is understood that after the loan is made I can return the money to you within 10 days and there will be no charge or cost whatsoever.

Amount you want to borrow $_____ On what date of month will your payment BE IN OUR OFFICE?_____

Age_____ Amount earned per month $_____ Number of months you receive salary_____

Name and address of school you teach_____

How long with present employer_____ Previous employment_____

Husband or wife's employment_____ Salary per month $_____

To whom are payments on auto made? (Name)_____ Town_____

Bank you deal with (Name)_____ Town_____

Amount you owe bank? $_____ Monthly payments? $_____

What security on bank loan?_____

List below OTHER Loan or Finance company (or person) you NOW owe on a loan:

$_____ to (Name)_____ (Add.)_____

Pay rent or real estate payment to? (Name)_____ Town_____

Purpose of loan_____

The following are all the debts that I have:

Full Amount I Still Owe	Paying Per Mo.	To Whom Owing	Address
$_____	$_____	_____	_____
$_____	$_____	_____	_____

FILE INFORMATION ONLY—Please list below relative information for our confidential files

Name of Relative_____ (Relationship)_____

Street_____ Town_____ State_____ Occup._____

Name of Relative_____ (Relationship)_____

Street_____ Town_____ State_____ Occup._____

Name of Relative_____ (Relationship)_____

Street_____ Town_____ State_____ Occup._____

Name of Relative_____ (Relationship)_____

Street_____ Town_____ State_____ Occup._____

The above statements are made for the purpose of securing a loan. I agree that if any loan be completed, the U.S. Mail shall be regarded as my agent.

Sign Full Name Here_____ Street Address_____

Town_____ County_____ State_____

NOTE Amount of Loan $_____ | Monthly Payment $_____ | First Payment Due Date_____ | Final Payment Due Date_____ | Date_____

In consideration of the Amount of Loan, above stated, made by State Finance Company at its office in Omaha, Nebraska, the undersigned promise to pay to said company at its office the amount of said loan together with interest as stated herein.

A Monthly Payment as stated above shall be made in each month beginning with the above First Payment Due Date and ending with the above Final Payment Due Date, except that the Final Payment shall be equal to the unpaid principal balance and interest.

Default in the terms of this note shall at the company's option, without notice, render the then unpaid balance due and payable.

It is agreed that the validity and construction of this note shall be determined under and by virtue of the laws of Nebraska.

NO PRINCIPAL PAYMENTS REQUIRED DURING MONTHS IN WHICH TEACHING SALARY IS NOT RECEIVED

PERSONAL SIGNATURES REQUIRED

This note is subject to acceptance by the company at its office and will be promptly returned to the undersigned if the loan is not approved.

The interest hereon shall be at the rate of 3% per month on that part of the unpaid principal balance not exceeding $150 and 2½% per month on that part over $150 and not in excess of $300 and ¾ of 1% per month on any remainder of such unpaid principal balance computed on the number of days elapsed, a month being 30 consecutive days.

_____

_____

(If married, both husband and wife must PERSONALLY sign)

RETURN THIS FORM PROMPTLY TO AVOID DELAY IN COMPLETING YOUR LOAN